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ABSTRACT

A survey of Irish education and economic development was carried out during 1962-1965. The survey was conducted within the framework of the Educational Investment and Planning Programme of the Organisation for Economic Cooperation and Development (OECD) for presentation at a confrontation meeting in October 1966 with OECD's Committee for Scientific and Technical Personnel. Part one of the document consists of the Examiner's Report of Irish education. It contains examinations of the general framework of educational planning in Ireland; the educational system and enrollment trends; the evolution of the educational system in the context of economic and social development, including problems and strategies for change; and an overall strategy of educational development. Specific issues chosen for review at the meeting were the planning mechanism for education, manpower planning and targets, social participation, primary education, secondary education, higher education, and adult education. Discussions of the issues are contained in the record of the Confrontation Meeting, which is part two of the document. A summary and comments on "Investment in Education," some issues and problems emerging from the survey, and policy statements by Irish ministers of education are included as appendices. (ND)

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# REVIEWS OF NATIONAL POLICIES FOR EDUCATION

SO 009 292

# IRELAND

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PARIS 1969

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# CONTENTS

General Introduction . . . . . 7

## *Part One*

## THE EXAMINERS' REPORT

I. Introduction to the Examiners' Report . . . . . 15
  A. *Aims and composition of the Examiners' mission* . . . . . 15
  B. *Group visit to Ireland* . . . . . 15
  C. *Purpose and content of the present work* . . . . . 16

II. The general framework of educational planning in Ireland . . . . . 19
  A. *The report by the Irish team:* Investment in Education . . . . . 19
  B. *The public function of the report* . . . . . 19
  C. *Adoption of the report's single recommendation: creation of an educational development unit* . . . . . 20

III. The educational system and enrolment trends . . . . . 23
  A. *Structure of Irish education* . . . . . 23
  B. *Present state of enrolment* . . . . . 25
  C. *Projection of enrolment trends* . . . . . 26
  D. *Financial resources devoted to education* . . . . . 27

IV. Evolution of the educational system in the context of economic and social development: Problems and strategies of change . . . . . 29
  A. *Adjustment of the educational system to the requirements of the economy and society* . . . . . 30
  B. *Primary education* . . . . . 33
  C. *Post-primary education* . . . . . 38
  D. *Third level: higher education* . . . . . 43

V. Conclusion: overall strategy of educational development . . . . . 47

## *Part Two*

## THE CONFRONTATION MEETING

I. Basic considerations for educational policy and planning in Ireland . . . . . 59
  A. *Introductory remarks by the examining group* . . . . . 59
  B. *Introductory remarks by the Irish Delegation* . . . . . 60

II. The educational planning mechanism . . . . . 63

III. Manpower targets and planning . . . . . 67

IV. Social participation . . . . . . . . . . . . . . . . . . . . . . . . . . . . 69
V. Primary education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 73
VI. Post-primary education . . . . . . . . . . . . . . . . . . . . . . . . . 77
VII. Higher education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 79
VIII. Adult education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 81
IX. General conclusion . . . . . . . . . . . . . . . . . . . . . . . . . . . 83

*Appendices*

I. Summary of *Investment in Education* by Dr. Bernhard von Mutius . . . . . 87

II. Some Issues and Problems Emerging from the Survey . . . . . . . . . . . . 105

III. Excerpts from "Comments on *Investment in Education*" . . . . . . . . . . 111
  A. *Analysis of curriculum in Irish schools* . . . . . . . . . . . . . . . . . 111
  B. *Developing the educational planning mechanism in Ireland* . . . . . . . 115

IV. Policy Statements: Ministers of Education (Ireland) . . . . . . . . . . . 119
  *Post-primary education* by P.J. Hillery, T.D. (Minister, 1959–65) and George Colley, T.D. (Minister, 1965–66) . . . . . . . . . . . . . . . . 119
  *University education in Dublin* by D.B. O'Malley, T.D. (Minister, 1966–68) . . . . . . . . . . . . . . . . . . . . . . . . . . . 131

V. List of Participants: Confrontation Meeting . . . . . . . . . . . . . . . . 139

*List of Tables*

1. Number of full-time pupils, by level of education, 1963–64 and 1964–65 . . . 49
2. Rates of school attendance, Ireland, 1963–64, 1964–65 and projection for 1970–71 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50
3. Rates of full-time attendance at second level establishments between 15 and 17 years of age: comparative data . . . . . . . . . . . . . . . . . . . . . 50
4. Rates of school attendance, by sex, Ireland, 1964–65 . . . . . . . . . . . . . 51
5. Public expenditure on education as compared with total public expenditure — comparative data . . . . . . . . . . . . . . . . . . . . . . . . . . 51
6. Total expenditure on education as a percentage of Gross National Product — comparative data 1961 or 1961–62 . . . . . . . . . . . . . . . . . . . 52
7. Educational targets in the light of labour force requirements according to major occupational categories: analysis of inflows for the period 1961–1971 . . 53
8. Labour force supply and demand by educational qualification: flow comparison, period 1961–1971 . . . . . . . . . . . . . . . . . . . . . . . . . . 53
9. Professional and technical personnel projected to 1976 . . . . . . . . . . . . 54
10. National schools: number of pupils and teachers by size of school, 1962–63 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 55
11. Percentage of students studying certain subjects in the two secondary cycles, 1962–63 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 55

# GENERAL INTRODUCTION

## IRISH EDUCATION AND ECONOMIC DEVELOPMENT

For the past ten years, that is, since the adoption of the first economic growth plan in 1958, Ireland has been making a strong and systematic effort to develop her economy. Educational progress, as the corner-stone of this effort, is meant to ensure that Ireland will benefit fully from the fruits of economic and technical progress. Few countries, when undertaking the revision of their educational systems, have shown so much coherency and determination as the Irish in recent years. The authorities have insisted on carrying out their task under the aegis of international co-operation and have thus made a remarkable contribution towards the achievement of the aims of OECD Member countries.

Ireland was the first Member country to follow up the proposal made in 1961 at the OECD Conference on Economic Growth and Investment in Education in Washington, D.C. and to undertake a national survey in connection with the adapting of its educational system to the present and future requirements of scientific progress and economic growth. The Irish survey was carried out during the period 1962–1965 with the help of OECD and within the framework of its Educational Investment and Planning Programme (the EIP). The survey team set up for this purpose by the Irish Minister of Education, under the direction of Mr. Patrick Lynch, professor at University College, Dublin, published the results of their inquiries in a comprehensive policy and planning report in 1966 under the title, *Investment in Education.**

Before publication the total draft report was subjected to a series of technical reviews and discussions by the group of national planning directors in the EIP Programme. Finally revised and published, this report became the basis for the work of the group of examiners invited by OECD in June 1966 to assess Irish educational policy and planning in preparation for the confrontation meeting held on 19th and 20th October 1966 as part of the programme of the Committee for Scientific and Technical Personnel (CSTP) in OECD. Thus, Ireland was the first Member country to undertake a comprehensive policy and planning survey of its educational system under the OECD Educational Investment and Planning Programme and was also the first country to submit such a survey as a basis for a confrontation meeting of National Delegations to the CSTP.

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* Report of the Survey Team for Ireland, *Investment in Education*, OECD, Paris, 1966, and Dublin, Government Publications Sale Office, GPO Arcade, Dublin 1. Volume 2 Annexes and Appendices to the Report (Methodology Essays and Statistics), Dublin, Government Publications Sale Office.

The Examiners' report, the record of the confrontation meeting, and the EIP report *Investment in Education* referred to above, show the wide range of educational problems facing Ireland. The question of the orientation to be given to educational development is exceedingly critical for Ireland: how to meet the quantitative and qualitative requirements of a modern economy whose growth from now on will necessarily depend on scientific and technical progress. Ireland has fewer than three million inhabitants. This number is not expected to increase substantially, as year after year the country loses almost totally its growth in population through emigration. Furthermore, it is the most highly skilled people who leave, attracted by richer countries. Thus, limitations in available human resources are among the major obstacles to economic growth in Ireland.

In this context, the decisive aspects of an educational development policy become very marked, and furthermore, an examination of the Irish situation brings out very clearly a fundamental difficulty in attempts at educational planning. This difficulty may be expressed in the following terms: how to reconcile the search for the best balance between the needs of the economy and the "output" of the educational system with the concept of the maximum amount of education, according to aptitude, for all young people — a concept which is now apparently the basis for the most national education policies, at least in OECD countries. An examination of the Irish situation shows very clearly the need for an overall development strategy for education. The connections are complex and numerous between such problems as the reform of primary education, general access to secondary and post-secondary education, the diversification and development of secondary education, technician training, higher education and research, teacher training, etc. It is with these ideas in mind that the examiners and participants at the confrontation meeting accorded particular importance to the analysis of the priorities decided upon by the Irish authorities, and to the means proposed to attain the objectives to which they have given priority.

Thus, while this OECD inquiry into Irish education has been both intensive and extended, its record can be reasonably viewed as only one of a series of events in the process of developing educational policy in Ireland in recent years. The record is written in a way intended to reflect the fact that this process has, since the confrontation meeting, been a continuing one, particularly in Ireland's active planning and research programme for education.

## PLANNING PRIORITIES AND STRATEGY

### Issues for the Review

A major task of this review has been to focus attention on particular issues concerning Irish education and bearing upon the interests of other Member countries without losing sight of the comprehensiveness of the Irish planning effort. Pursuing this objective, the Examiners had proposed the following structure of general and specific issues to the Committee upon which it based its questions to the Irish authorities during the confrontation meeting. The specific issues are summarized here, with page references to the Examiners' report, so as to set forth the main subjects which tie together the Examiners' report and the record of the confrontation meeting.

The Irish Government's economic development programme* provided a framework for defining the directions and priorities of educational planning. Any such definition, however, must reflect the fundamental problem of satisfying the quantitative and qualitative educational requirements of a modern economy which depends on technical and scientific progress. In the case of Ireland three main issues appeared to be related to this problem and were proposed for discussion at the confrontation meeting:

1. *Development of the planning mechanism for Irish education*

This called for the provision of facilities to enable the Irish Department of Education's recently created Development Branch (set up in compliance with the only formal recommendation in the EIP Report) to carry out its task efficiently: recruitment of the necessary scientific personnel; development of educational research in the light of innovation; and participation of the community at large in preparing policies and carrying out the plans.

2. *Establishment of priorities for developing the educational system*

According to *Investment in Education* and the Examiners' report, special consideration should be given to the requirements of the economy as determined by the Government's economic growth programme, to the need to extend higher education to all social classes and to the need for greater emphasis in the educational system on science and technology.

3. *Preparation of a strategy for achieving priority targets*

This involved special attention to the following topics: surveying the teacher's role; reviewing teacher training curricula in the light of changes in teaching methods; reforming the school structure; creating new types of educational establishments; preparing new methods of financing education; fitting higher education into the general context of the Irish educational system.

These general problems led to a series of specific questions posed by the Examiners which were grouped under seven headings. They are listed along with references to the relevant pages in the Examiners report and provide the structure for the confrontation meeting discussion summarized in Part II.

Specific Issues for the Review

1. *The planning mechanism for education;* its development and programme (p. 63).
2. *Manpower planning and targets;* specific relationships between educational and economic plans (p. 67 and Tables 7–8).
3. *Social participation;* the priority position and practical plans toward equalizing educational opportunity (p. 69).

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* See ***Second Programme for Economic Expansion***, **Part I (August 1963), Part II (July 1964), Dublin, Government Publications Sale Office.**

4. *Primary education;* as a newly recognized key to effective educational reform — centralization, modernization of curriculum, improvement in teacher training (p. 73).

5. *Post-primary education;* the up-grading and co-ordination of technical with academic secondary education and the implications for teacher training (p. 77).

6. *Higher education;* the need for expansion and reorganisation in response to Irish social development (79).

7. *Adult education;* particularly the need to retrain that section of the labour force already "missed" by the school system.

During the confrontation meeting the Committee successively discussed these seven areas of Irish educational policy (Part II). The Examiners' report discusses these issues in some detail (Part I).

## THE DOCUMENTARY BASIS FOR THE REVIEW

The following Examiners' report (Part I) guided the OECD Committee for Scientific and Technical Personnel in its discussion of Irish educational policy and planning. An account of the confrontation meeting (Part II) follows the Examiners' report.

The review draws heavily upon the comprehensive report of the Irish planning team, *Investment in Education*, prepared under the EIP programme. The material from this report seemed to the Examiners to be essential for an understanding of the Irish educational situation, and therefore a summary, originally prepared by one of the Examiners for discussion in the EIP Programme, and the report's concluding chapter, "Some Issues and Problems", have been appended to this record.* To these have been added excerpts from the detailed critique of *Investment in Education* by the Irish National Industrial Economic Council dealing with subjects particularly pertinent to the confrontation discussion.**

Finally, the Irish authorities submitted three policy statements by Irish Ministers of Education of very broad significance which form part of the necessary background documentation. These are included in Appendix IV.

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* See Appendices I and II.

** See Appendix III.

## THE CONFRONTATION MEETING

The confrontation meeting for the review of Irish educational policy and planning was held on October 19th and 20th 1966 at the 16th Session of the Committee for Scientific and Technical Personnel.

### *MEMBERS OF THE IRISH DELEGATION*

Dr. T.O'Raifeartaigh,
*Secretary General of the Department of Education, Dublin.*

Mr. S. O'Conchobhair,
*Assistant Secretary General of the Department of Education, Dublin.*

Mr. M. O'Donoghue,
*Professor in the Department of Economics, Trinity College, Dublin.*

Mr. W.J. Hyland,
*Statistician, Development Branch,*
*Department of Education, Dublin.*

Mr. M.J. O'Flanagan,
*Chief Inspector for Technical Education,*
*Department of Education, Dublin.*

Mr. C. Smith,
*Secretary of the Irish EIP Survey Team,*
*Department of Education, Dublin.*

### *THE EXAMINERS*

Professor Dr. Henri Janne,
*Président du Collège scientifique de l'Institut de Sociologie,*
*University of Brussels.*

Mr. Bernhard von Mutius,
*Regierungsdirektor,*
*Permanent Conference of Ministers of Education*
*of the Federal Republic of Germany.*

Mr. Arthur Tremblay,
*Deputy Minister of Education, Province of Quebec.*

Mr. Yves Martin, (Rapporteur)
*Director of Research, Planning Department,*
*Ministry of Education, Province of Quebec.*

*Part one*

# THE EXAMINERS' REPORT

# I

## INTRODUCTION

### A. AIMS AND COMPOSITION OF THE EXAMINERS' MISSION

In the context of the OECD Educational Investment and Planning Programme, the Irish authorities established a team of experts in 1962 to carry out a survey on the state and needs of education in their country in the light of the foreseeable requirements of economic development. The findings of this team were published in December 1965, in the report *Investment in Education* prepared within the framework of the OECD's Educational Investment and Planning Programme.

The examining group pursued its assignment aware that the OECD Committee for Scientific and Technical Personnel would examine this report at the confrontation meeting and therefore closely considered its contents as a basis for this examination. In the following report, the examiners attempt to point out those major problems which could be most fruitfully discussed by the Irish educational authorities and the representatives of the other Member countries of the CSTP.

The group of examiners consists of Professor Henri Janne, former Belgian Minister of Education, Mr. Bernhard von Mutius, Regierungsdirektor of the Permanent Conference of Ministers of Education of Germany, and Mr. Arthur Tremblay, Deputy Minister of Education of Quebec (Canada). As Mr. Tremblay was unable to accompany the group on its visit to Ireland, the rapporteur was invited to deputise for him as examiner. Mr. Beresford Hayward, Head of the OECD-EIP Programme Section, joined the group of examiners during part of their stay in Ireland from 12th to 18th June 1966.

### B. GROUP VISIT TO IRELAND

During their week's stay in Ireland, the group of examiners held intensive daily working sessions with senior officials in the Department of Education: Mr. T. O'Raifeartaigh, Secretary of the Department and his Assistants, Mr. Sean MacGearailt and Mr. Sean O'Conchobhair, who were joined, as dictated by the problems examined, by the heads of the various branches of the Department. The group enjoyed the advantage of discussing the main aspects of Irish educational policy with the Minister for Education Mr. George Colley. In spite of the demands of the Parliamentary session under way, the Minister made a point of meeting the examiners for lengthy discussions on three occasions during their stay.

Moreover, the authorities at the Department of Education left no stone unturned in order to provide the visitors with all useful information relating to their work. Through their intermediary, frequent contacts were first established between the Examiners and the members of the team responsible for preparing the report on educational planning in Ireland. Mr. Patrick Lynch, Chairman, Mr. Martin O'Donoghue, Mr. Padraig O'Nuallain. The fourth member of this team, Mr. William J. Hyland, was attached to the United Nations Organisation at Geneva at this time. Furthermore, the Examiners were able to delve deeper into certain special points of their study during interviews with the Chairman of the Commission of Enquiry on Higher Education, Chief Justice O'Daly; the President of University College, Dublin, Professor Hogan; the President of St. Patrick's Teachers Training College, Father Cregan; Father O'Cathain who is responsible for the Higher Diploma in Education at University College Dublin, and the economic adviser to the Department of Finance, Professor W.J.L. Ryan. Finally, in spite of an extremely full timetible, the examiners were able to visit a few educational establishments: St. Patrick's Teachers Training College, the Kevin Street College of Technology and a school for deaf children run by the Dominican Nuns.

The examiners wish to stress the cordiality of their welcome in Ireland and to thank their hosts very warmly. They are grateful to them for having thereby created the conditions most favourable for profitable discussion.

## C. PURPOSE AND CONTENT OF THE PRESENT REPORT

In accordance with its terms of reference, the group of examiners regard the present report essentially as a working paper designed to serve as a point of departure for the examination which will be made of educational planning in Ireland by the members of the CSTP. The group therefore attempts to highlight the major directions of Irish educational policy, together with the main problems which will have to be solved in order to bring educational progress into line with the requirements of the country's economic and social development. It is not within the group's province to make any criticisms and still less any recommendations. It confines itself here to suggesting a series of topics in order to contribute towards a study of Irish educational policy and planning which will be as constructive as possible and the richest in object lessons for the various countries taking part in the work of the CSTP. The background paper for the present study is the report on the work of the EIP team, published under the title *Investment in Education*.

The present report begins by a brief account of the history and framework of educational planning in Ireland. This is followed by a short description of the Irish educational system. The bulk of the report comprises a statement of the problems which arise from a planning point of view at each level of education. The final section endeavours to discuss one or two topics relating to the overall strategy of educational development having regard to the aims of economic and social development in Ireland.

# II

# THE GENERAL FRAMEWORK OF EDUCATIONAL PLANNING IN IRELAND

## A. THE REPORT BY THE IRISH TEAM: INVESTMENT IN EDUCATION

Not only is the need for educational planning in the light of their country's long-term development requirements officially agreed upon by the Irish authorities, but the latter have already taken essential measures in this respect. It may be recalled that Ireland was the first Member country to take steps in the direction proposed when the participants at the OECD meeting in Washington in 1961 proposed that national surveys should be undertaken on the adaptation of the educational systems to the requirements of scientific progress and economic growth. ***Investment in Education*** is the report on the Irish survey carried out with OECD help over the years 1962–1965.

It was not within the Irish team's terms of reference to propose an educational development plan, nor to recommend special measures on the orientation of policies of investment in education. Their task was to lay a foundation on which an overall strategy of development might subsequently be built. The report is in this respect a document of exceptional quality. Both its structure and the strict analytical approach in its various parts are important methodological contributions to the EIP programme. This achievement is all the more remarkable as the team of experts was obliged itself to collect a good part of the essential statistical data for its work. The report has justly been presented as an exploit which will force itself on the attention of a great number of specialists in the field of education abroad as well as in Ireland.*

## B. THE PUBLIC FUNCTION OF THE REPORT

Furthermore, this report has received broad public attention and has succeeded in focussing extensive discussion on the problems of educational development in Ireland. Numerous and, with few exceptions, extremely favourable comments have greeted the publication of *Investment in Education* in Ireland.* For example, the following is an assessment by a Dublin correspondent of the London "Times":

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* See Garret Fitzgerald, Investment in Education, *Studies*, Vol. LIV, No. 216, Winter, 1965, Dublin, p. 374.

> "The first to be completed of a number of surveys sponsored by the Organisation for Economic Co-operation and Development, *Investment in Education* is essentially a technical study of trends in Irish education, of the use of Ireland's human and material resources and of the demands likely to be made to meet the country's future needs. But it is in no sense narrowly material.
>
> On the contrary, it is philosophical, subtle, alert, humane and realistic, and balances the hopeful against the sombre in the nicest and most unostentatious fashion".**

It is not the Irish team's smallest merit that it has been able to inspire almost complete unanimity regarding the report, even though the latter throws unrestricted light on the complex series of problems which must be solved in the educational field in order to ensure the future development of the Irish economy and Irish society. This is due to the remarkable objectivity of the analyses made in the report.

Thanks to this, the report has not only provided the Irish authorities with a basic document for planning education, but it has at the same time somehow launched the process of planning at public opinion level. Publication of the report has manifestly awakened the public's interest in problems which were previously seldom discussed outside the small circles of specialists or groups directly concerned with education.

## C. ADOPTION OF THE REPORT'S SINGLE RECOMMENDATION: CREATION OF AN EDUCATIONAL DEVELOPMENT UNIT

The Irish report contains only one formal recommendation. The authors urge that a development unit be set up in the Department of Education. They regard this unit as a study and research body whose work would form an indispensible continuation of their survey which, they point out, can be regarded as only the starting point for the continuous work of analysis and forecasting required in order to prepare educational policies and run the educational system in full knowledge of the facts. The Irish authorities have approved the survey team's proposal and have already begun to put it into practice. As recommended in the report, a new post of Assistant Secretary has been created in the Department and this recently appointed officer is responsible for the long-term planning of the Department's activities and educational development in general, together with the task of setting up and running the development branch. Steps have been taken to recruit the specialists who are to form the initial staff of the new branch: a statistician, an economist, a school inspector, an operational research expert and a sociologist. At the time of the group's visit, the branch seemed about to obtain the services of a reputed and experienced statistician. The recruitment of the other specialists appears to present greater difficulties. It will be interesting at the confrontation meeting if the Irish authorities could give further details regarding the establishment of this branch which, according to the authors of the report, has a major role to play in the planning of education in Ireland.

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* The group of examiners was able to consult the complete file of press cuttings referring to the publication of the report.

** John O'Meara, "Irish (Education) Department as Development Corporation", *The Times Educational Supplement*, Friday, 21st January 1966.

It should not be assumed from the preceding that the only action instigated by the Irish survey team so far is the creation of a development branch. As we shall see later, the Department of Education has already begun, and in some cases several months ago, to pay systematic attention to the problems brought to light by the report: as an example, we mention the current measures to reduce the number of small elementary schools. However, it is to be emphasized that the major problems now confronting Irish educational authorities are characterized by the problems involved in the establishment and operation of the development branch in the Ministry of Education. The general problem is: how to follow up effectively the investigation done in the past three years; how to implement the educational reforms which have emerged as a necessary part of Irish policy.

# III

## THE EDUCATIONAL SYSTEM AND ENROLMENT TRENDS

The present section begins with a short description of the Irish educational system from the institutional point of view. This will be followed by a description of the present state of school enrolment in Ireland on the basis of data published in *Investment in Education*, more recent figures and international comparisons. Enrolment trends will then be briefly examined. Lastly, certain figures will be quoted regarding the financial resources devoted to education. The present section is therefore essentially descriptive: the aim is to provide a clearer setting for the comments made later in the text.

### A. STRUCTURE OF IRISH EDUCATION

*First level*

*Primary* or *first-level education* is provided mainly by the national schools, which are State-aided and whose tuition is given free of charge. These schools are managed by the local Catholic or Protestant clergy as the case may be. The teachers are paid directly by the Department of Education, which also shoulders part of the other operating expenditure and contributes at least two-thirds towards the total cost of school equipment. The curriculum of the schools is laid down by the Minister for Education and inspection of the teachers is carried out by inspectors of the Department of Education. Although intended for pupils of 6 to 14 years of age, i.e. the period of compulsory school attendance, the national schools in fact take pupils between 4 and 18 years of age. The six-year elementary course normally begins at the age of 6, but a high proportion of children are enrolled as early as the age of 4 in nursery classes. In addition to the national schools, non-aided establishments also provide primary education for about 4% of the total numbers in that age-group. Furthermore, some 0.4% of these total numbers attend special schools for mentally and physically handicapped children.

National-school teachers are trained in teacher training colleges which are State-aided and under ecclesiastical management. The conditions of admission and the curriculum are prescribed by the Minister for Education. The course of training is of two years' duration. Applicants are mainly recruited by competitive examination and must have their secondary-school leaving certificate.

### *Second level*

*Post-primary* or *second-level education* comprises two main types of establishments: secondary schools and vocational schools.

The *secondary schools* are private establishments largely owned and run by religious organisations. They charge fees but State grants are their principal source of finance. In addition to an annual grant in proportion to the number of pupils, the State pays the larger part of the teachers' salaries; it also makes various special grants (science teaching, laboratory equipment, etc.) and since 1964 has been contributing towards the cost of school building. The secondary schools are subject to inspection and prepare their pupils for State examinations: the Intermediate Certificate, generally taken at the age of 15, and the Leaving Certificate, taken at 17 or 18 giving access to University or teacher training college. The length of the complete secondary-school programme varies between five and six years, according to the pupils. Some national schools have what is known as a "secondary top" section which prepare pupils for the Intermediate and Leaving Certificate examinations.

The *vocational schools* are public establishments run by local committees which have powers to raise funds through local rates. About 90% of their income comes from government grants and these local sources; the scale of fees is generally low. There are two types of vocational school:

*a*) Schools providing *continuation education* belong to the first category. This normally lasts two years, although a tendency is developing to extend it by one year, and is intended to give practical but general training in preparation for employment for youngsters who do not go on to secondary school. The age of admission to continuation schools is 14 years, but children over 13 who have completed the full elementary cycle are also admitted. The continuation course leads to the Group Certificate;

*b*) Schools providing *technical education* form the second type of vocational school. They provide special training in preparation for employment in trades, industry or commerce. Some of them prepare students for university-level diplomas. It should be noted that the vocational schools also provide part-time training, particularly in connection with apprenticeship schemes.

Post-primary teacher training is provided by the University, which awards the Higher Diploma in Education, preparation for which necessitates one year of combined study and supervised teaching practice. The Department itself organises courses of teacher-qualification in certain subjects which play an important role in the programme of continuation education: domestic economy, woodwork, metalwork. Other applicants for teaching in vocational schools must have a university degree or recognized professional qualification, according to the subject taught.

### *Third level*

Ireland has two universities: the National University – which consists of the three Colleges in Dublin, Cork and Galway and to which the Theological College at Maynooth is affiliated – and the University of Dublin (Trinity College). Both universities are autonomous. They receive State grants based on the budgetary estimates submitted each year by the university authorities, but the former are not tied to the number of teachers, students or courses. Relatively high fees are charged. Entrance to the university is through a matriculation certificate or other acceptable qualification. The Secondary School Leaving Certificate is accepted for the purpose of matriculation. In addition to university education, Irish higher education also includes the teacher-training colleges, the Military College, the College of Surgeons, the College of Pharmacy, the National College of Art in Dublin, certain subjects taught in the Colleges of Technology and lastly the Seminaries and Schools of Theology.

## B. PRESENT STATE OF ENROLMENT

Table 1 shows full-time enrolments in 1963–1964 and in 1964–1965 in the Irish Educational system as a whole. The breakdown of total numbers at 1st February 1965 was as follows:

| | |
|---|---|
| First level ........... | 500,702 |
| Second level ....... | 134,090 |
| Third level ......... | 18,197 |
| Total ................. | 652,989 |

Table 2 gives the rates of school attendance by age or age-group for the two years 1963–1964 and 1964–1965, as well as a projection of these rates, to which we shall return later, for 1970–1971. It is interesting to compare the present Irish rates at 15, 16 and 17 years of age with the rates for the same ages in the Common Market countries, England and Wales, the United States and the USSR. The comparative data in Table 3 are taken from the recently published work by Raymont Poignant "L'enseignement dans les pays du Marché Commun" (*Education in the Common Market countries*).* The comparison covers the rate of full-time attendance between 15 and 17 years of age at second-level establishments. As Mr. Poignant points out, these rates are particularly significant regarding the state of a country's school enrolment in the light of the requirements of economic and social development. Both as regards the training of senior management and technicians, Mr. Poignant concludes that the real problem is the wider extension of "pre-university" secondary education on the one hand, and of final secondary education, i.e. training for technical types of employment, on the other.**

As far as enrolment rates are concerned, international comparison presents many difficulties which Mr. Poignant emphasizes at some length.

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* Paris, Institut pédagogique national, 1965.

** *Ibid.*, pages 275 and seq.

In order to interpret such comparisons correctly, it is obviously indispensible to allow for the differences between the educational structures peculiar to each country. Without repeating the arguments which will be found on this subject in the above mentioned work, a number of explanations are nevertheless called for here regarding the figures in Table 3. It will be noted that the rates given refer only to full-time attendance at second-level establishments by youngsters of 15 to 17. The total rates of full-time attendance at the same age would obviously be different. At 15, for example, 1.4 % of Irish youngsters still attended a primary school in 1964–1965. The corresponding rate does not exceed 2 %, at the dates given in the table, in the other countries considered except Germany, where it appears to have been 14.6 % according to the figures published by Mr. Poignant.* Nor does Table 3 take account of enrolments in higher education; in Ireland, 1.5 % of all young people of 17 attended higher educational establishments. Interpretation of Table 3 is made still more complicated owing to the different national positions as regards part-time education at the ages considered. The case of Germany is especially remarkable in this respect: allowing for enrolments in the "Berufsschulen" – Vocational schools which receive up to the age of 18 young people (apprentices, clerical staff or those without employment) who are not in receipt of full-time education – the rate of attendance in second-level establishments would be nearly 90 % at 15 years of age and over 70 % at 17 years of age. For England and Wales, the rates observed in 1962–1963 would rise from 47.4 to 76.6 % at 15 years of age, from 28.5 to 60 % at 16 years of age and from 15.5 to 49.2 % at 17 years of age. Unfortunately, we have no age-breakdown for Ireland of enrolments in the various part-time forms of education; all we know is that, in 1963–1964, there were some 21,000 enrolments of youngsters under 16 years of age for apprenticeship courses and various part-time day and evening courses.**

The comparison suggested in Table 3 gives some useful information, but no well-founded assessment can easily be deduced from it as regards the state of enrolment beyond the primary level in Ireland. Although such enrolment is relatively satisfactory at 15 and 16 years of age, this country is behind most of the other countries considered, as clearly stands out from a comparison of the rates at 17 years of age.

Table 4 shows that the rate of enrolment is constantly higher among girls than among boys in Ireland up to the age of 18. At 19 and beyond, the number of girls who continue their studies is less than half the number of young men.

## C. PROJECTION OF ENROLMENT TRENDS

The authors of the Irish report have made a projection of enrolment trends for 1970–1971 on the general assumption that there will be no important change during the period considered in the orientation of the educational system apart from the three measures already announced at the time of their study. These measures are as follows:

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* *Ibid.*, Table 49, page 146.

** Report by the Department of Education for 1963–64 (An Roinn Oideachais, *Tuarascail*, 1963–64). The number of students is smaller than the number of enrolments as many enrol for several courses.

*a*) Extension of the period of compulsory school attendance to 15 years of age as from 1970;

*b*) Addition of one year to the two-year continuation course provided in vocational schools, which should entail a rise in school attendance at 15 and 16 years of age;

*c*) Creation of a new diploma, the Technical Leaving Certificate, equivalent to the Secondary Leaving Certificate; this measure, which it is estimated should entail a rise in school attendance at 17 and 18 years of age, has not yet been put into force.

The authors have no doubt limited the period of projection to 1970–1971 in order, in accordance with their self-imposed rule, not to trespass on any new policies which will later be defined. Longer-term projections might nevertheless have thrown greater light on certain problems and shown that the reorientation of certain policies was more urgent.

The projection of enrolment rates for 1970–1971 is shown in Table 2.* The effect of the measures listed in the preceding paragraph on attendance between 14 and 19 years of age may be discerned. It may be wondered whether reality will correspond with the projection. A wide margin remains to be filled for school attendance at 14 years of age to become general. Insofar as the rise in attendance at 15 and 16 years of age will depend on the extension of continuation education and the establishment of comprehensive schools at junior post-primary level — we shall return to this subject later — these new policies should bear fruit rapidly since they are only due to be implemented in September 1966.

## D. FINANCIAL RESOURCES DEVOTED TO EDUCATION

In Chapter 5 of their report, the authors of *Investment in Education* take their projection of pupil numbers as a basis and forecast an increase of about 72 % in total expenditure on education between 1961–1962 and 1970–1971, i.e. a rise from 5 to 5.8 % of national income. Public expenditure on education should almost double, rising from £22.4 million to £40.5 million, i.e. from 3.8 to 4.6 % of national income. In other words, even without appreciably changing the orientation of educational policies, the State should have to meet heavy commitments in order to provide for the normal growth of the educational system over the next few years. It might perhaps be revealing in this context to compare the efforts made in Ireland for the development of education with what has been observed in the countries already considered with regard to enrolment. Once again, Mr. Poignant offers the basis for an interesting comparison concerning the proportion of total public expenditure devoted to education and the proportion of gross national product accounted for by total expenditure (public and private) on education.*

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* A detailed projection of the number of pupils by level, type of school and age will be found in *Investment in Education*, Tables 3.1 and 3.2.

The proportion of public expenditure devoted to education in Ireland is rising, as shown by Table 5. No conclusions should be drawn from the international comparison in this table without due allowance being made for a characteristic feature of the Irish educational system: the relatively high contribution of private resources towards the financing of education. In 1961–1962, one-quarter of educational expenditure was borne directly by families or students. However, it is estimated that educational finance will depend only about one-fifth on private resources by 1970–1971.

In 1961–1962, total expenditure on education accounted for 4.1% of Ireland's gross national product. Ireland therefore came sixth among the nine countries listed in Table 6, behind the United States, the Netherlands, the USSR, Belgium and the United Kingdom and in front of Italy, France and Germany. The authors of *Investment in Education* consider that expenditure on education will rise to 4.7% of GNP by 1970–1971 if their above-mentioned projections prove correct. It will be recalled that these projections are based on the general assumption that there will be no major change in the orientation of educational policies apart from the measures announced in 1964. The projected increase should raise expenditure per head for educational purposes from roughly £10.10s. in 1961–1962 to over £17 in 1970–1971. Judging from the indices concerning the proportion of GNP already devoted to education in 1961–1962 by several economically developed countries, Ireland will probably have to increase still further after 1971 the efforts made for development of education, especially if it is to provide for the development of second and third-level education in accordance with the requirements of economic growth and social progress.

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* Raymond Poignant, *op. cit.*, pp. 235–255. Total expenditure includes operating expenditure and investment expenditure. Gross national product is in all cases assessed at market prices.

# IV

## EVOLUTION OF THE EDUCATIONAL SYSTEM IN THE CONTEXT OF ECONOMIC AND SOCIAL DEVELOPMENT: PROBLEMS AND STRATEGIES OF CHANGE

Within the specific limits of their terms of reference, the authors of the Irish Report give what from the point of view of method is an excellent explanation of the problem of the evolution of the educational system in the context of the country's economic and social development requirements. They themselves refrain from any definition of what the targets of the educational system should be and adopt as explicit postulates the targets proposed by the Second Programme for Economic Expansion (1964–1970)* for manpower requirements, as well as the general social target of securing adequate participation by all sections of the community in the advantages of the best possible education. They endeavour to find out how the educational system can meet future requirements considered in the light of these fundamental targets. Their model of analysis in fact constitutes a model of overall strategy for the orientation of the educational system. All their analyses are thus centered round the "productivity" of the educational system having regard to social and economic targets regarded as fundamental. The "external" productivity of the system, i.e. its adjustment to what is required of it from the point of view of social progress and economic growth, is thoroughly examined in Chapters VI, VII and VIII of the Report. The next three chapters assess the efficiency with which human and material resources are used in the educational sector. From this integrated series of analyses, the authors determine the major problems and their implications in the form of options available to those responsible for educational policy (Chapter XII). Without attempting to repeat the Report's analytical approach here, we shall briefly describe in the following paragraphs the main general problems brought to light by the Irish team regarding the evolution of the educational system in the context of economic and social development, as well as the policies adopted by the Irish authorities with a view to solving these problems.

* *Second Programme for Economic Expansion*, Part I, August 1963. Part II, July 1964, Stationery Office, Dublin.

## A. ADJUSTMENT OF THE EDUCATIONAL SYSTEM TO THE REQUIREMENTS OF THE ECONOMY AND SOCIETY

From the point of view of the external productivity of the educational system the two main series of problems highlighted by the Irish team concern the imbalance between the supply and demand for manpower according to the various levels of qualification and the inequalities of educational enrolment according to the various social and economic sectors or categories. We shall first consider these two general aspects of the problems of the adjustment of the educational system to the requirements of the economy and society. Questions such as the efficiency of the system, the bias and structure of curricula and the provision of teachers are directly or indirectly related to the same theme; they will be examined in later sections in connection with each educational level.

### *a) Manpower supply and demand*

Making the best possible use of the sometimes very limited data at its disposal, the Irish team suggests in Chapters VII and VIII of its Report the targets which should be achieved by the educational system in order to satisfy the manpower requirements arising from the Second Programme for Economic Expansion up to 1971. Basing themselves on the trends observed at the time of their study, they specify the targets which might reasonably be attained in the tabular form we reproduce here in Table 7. They then use this table in order to compare the target requirements with the number of school-leavers and graduates that could be provided by the educational system. The results of this comparison are expressed as "surpluses" or "deficits" according to the level of qualification required in the various categories of employment (see Table 8).

The comparison reveals a serious disequilibrium between the supply of and demand for persons in possession of the junior post-primary certificate (the secondary school Intermediate Certificate or the continuation school Group Certificate). According to the initial targets in the Second Programme, a "deficit" of about 76,000 was forecast between the number of jobs requiring a junior post-primary certificate and the number of persons in possession of that certificate. On the other hand, a surplus of about 70,000 was forecast for persons not in possession of any post-primary certificate. It now seems that the deficit will not be as great as predicted. The forecast of the number of jobs available in 1971 requiring the junior post-primary certificate will probably be lowered after the current review of the Second Programme. A prime factor in the reduction of the Programme's targets as regards manpower seems to be the actual rate of economic growth: the growth-rate of 4% originally fixed for the period 1964–1966 is not likely to be attained. Moreover the number of jobs should increase less rapidly than had been forecast because productivity should improve at a faster pace than was initially estimated. Be that as it may, the disequilibrium revealed by the Irish team remains one of the problems which seems urgently in need of solution. We shall return later to the solutions envisaged with a view to improving the efficiency of the system at junior post-primary level.

With regard to technician supply and demand, the authors were obliged to rely on fairly general estimates (see pages 208–221 of the Report) for lack of precise data on the situation and on the requirements of the various sectors of the economy in this respect. On the best assumption, they conclude, there will be a perhaps considerable gap between the economy's requirements in 1970 and the "production" of graduate technicians. This is to all appearances a critical area in the link between educational planning and economic development planning.

The authors of the Irish Report could not clearly see how the shortage of technicians was to be prevented from becoming very acute in 1970 or 1971, even though they had assumed that the number of enrolments in the technical schools would increase threefold between 1963–1964 and 1970–1971, rising from 1,600 to 5,000. This assumption was based on the implementation of projects announced in 1963 for the establishment of a Technical Leaving Certificate and the creation of regional technical colleges. As we shall see, it seems that the stage of implementing these projects is being broached more slowly than the authors of the Report had perhaps supposed. It should be noted that the solution of the problem does not in any case only depend on changes in academic structure or educational investment. No less important changes will have to take place in attitudes towards technical education. The latter will have to build up its prestige in the face of conventional secondary education, which in Ireland, as in the Western countries in general, has a solid tradition behind it. No doubt a significant step will have been taken in this direction when the Technical Leaving Certificate is introduced and organic co-ordination is established between technical education and secondary education at the same level, as well as between technical education and higher education.

With regard to highly skilled manpower, the Irish Report confines itself to a projection of stocks for 1971 and 1976 as the absence of data does not permit a detailed analysis of sector flows. Table 9 shows the results of this projection for professional and technical personnel. The Irish team emphasizes the special difficulties for Ireland entailed by the international mobility of highly skilled manpower. A high proportion of Irish graduates — as also of other categories of skilled personnel — emigrate, especially to Great Britain and the United States. The Universities systematically turn out a larger number of graduates than the country actually needs, particularly in certain sectors such as medicine.

### b) *Inequalities of enrolment*

While it emphasized the insufficient educational standard of a large part of the labour force, the Irish team's Report revealed very significant differences in school attendance according to social and economic categories and according to region. As the authors of the Report point out, elimination of the obstacles to equal opportunities of access to secondary or higher education is not only justified because it raises the labour force's level of qualification. They see it in some measure, in the same way as is increasingly the trend in the various other countries, as a necessary prerequisite for the general progress of society.

The following are the main conclusions which appear from the Irish team's studies on school attendance according to social category and geographical location. These conclusions coincide moreover with the conclusions to which similar studies have generally led in other countries:

1. There is a close correlation between membership of a social group and the fact of pursuing secondary or higher study. Thus, the rate of post-primary enrolment among young people between 15 and 19 years of age in 1961 was 4 to 5 times higher among the sons of members of the liberal professions, managerial staff and clerical staff than among the sons of unskilled workers. The contrasts are still more marked when we consider the rate of enrolment according to social origin in higher educational establishments. In 1963, the breakdown of university entrants by social origin of applicants was as follows:

| Father's occupation | Per cent |
|---|---|
| Liberal professions, senior and intermediate clerical staff | 65 |
| Other non-manual staff, bus or lorry drivers bus conductors, caretakers, postmen, waiters, etc. | 3 |
| Farmers | 20 |
| Skilled workers | 2 |
| Semi-skilled or unskilled workers, etc. | 6 |
| Father unemployed or deceased, etc. | 4 |

2. Considerable regional variations also exist which it has been impossible to explain entirely by reference to "social origin" or "income" factors. The geographical accessibility of post-primary educational establishments seems in several cases to be a decisive factor. Left mainly to private initiative, secondary education has developed at a very different pace from one county to another.

The social or regional variations in the opportunities of access to post-primary or university education are evidently due, as the authors of the Irish Report note, to a complex series of factors relating to *a*) the school organisation itself (location of schools, fees, conditions of admission, etc.); *b*) to family incomes, the cultural traditions of the various social classes, and so on; and *c*) to the actions (financial, regulatory and informational) of the State and of other public and private bodies. It is very probable that the important factors of *a*) the variation of family income (between families) and *b*) the variations (related to the above) in the proportion of family income which families can (or wish) to devote to their children's education can be changed only slowly. It would seem that the factor which could most readily be changed in the short term would be the magnitude and direction of the public activities mentioned above.

In this context, the authors of the Report suggest a complete revision of the present system of scholarships, as well as a new orientation of policy concerning the financing of post-primary establishments and even, more discreetly, the Universities. All the suggestions they make in this connection — especially in Chapter XII of the Report — are connected with the same principle: that of varying the amount of scholarships and all direct or indirect State financial assistance to students according to family income levels. At the present time, the number of scholarships is very small, particularly at university level: in 1965–1966, 249 scholarships were awarded by County Councils to university students, while the Department also awarded 25 scholarships to students reading for degrees through Irish.

Especially since 1961, the State has substantially increased its financial contribution to the student assistance scheme, a responsibility which it shares with the county and municipal councils. It is planned to double this contribution as soon as the economic situation permits. In any event, the general revision of policy concerning the financing of study and institutions suggested by the authors of the Report does not as yet seem to be envisaged. The examining group think it advisable that priority be given to such a revision.

## B. PRIMARY EDUCATION

The Irish authorities manifestly attach very great importance to primary education as the foundation of the whole school and university edifice. The authors of *Investment in Education* have emphasized certain shortcomings in primary education, mainly as regards the efficient utilization of the resources devoted to this sector, but also as regards the efficiency of primary education from the actual teaching point of view – the two problems being closely interconnected.

To begin with school organisation, the central problem seems to be the wide scatter of educational establishments and the many small schools: two-thirds of the schools have only a single teacher or two teachers (see Table 10). This problem is connected in varying degrees with: *a*) staffing, pupil/teacher ratios being very unequal according to the size of schools; *b*) educational backwardness and the efficiency of primary education: of the 17,500 youngsters who stopped fulltime education in 1962–1963, it is estimated that 11,000 of those who left the national schools did so without a primary leaving certificate;* *c*) the quality of teaching in general and the quality of mathematics teaching in particular. With no pretentions to analyse all the essential factors in a general reform of primary education, we shall note the principal themes at the centre of the Irish educational authorities' present cogitations and action.

### *a*) *School organisation: the centralization of schools*

Even before the Irish team's report appeared, the Department of Education authorities took a definite stand in favour of a gradual reduction in the number of small schools and especially of schools with only one teacher or two teachers. As suggested by the authors of the report, they have proposed as a structural prerequisite for the progress of primary education a policy of school centralization at local level. In certain apparently quite small circles, this policy has given rise to fairly strong reactions, as is generally the case in other countries which have undertaken a similar reform of the traditional structure of school organisation. But the authorities are perfectly aware that such reactions can delay application of the policy if appropriate steps are not taken to inform the circles concerned of the aims pursued and their justification.

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* ***Investment in Education*, pages 141 and 146.**

In Chapter IX of its report, the Irish team has systematically examined the territorial distribution of primary education. Having shown that the structure of school organisation at this level is the result of a series of political, social and demographic factors which affected its introduction in the nineteenth century, they point out the various problems which stem today from the maintenance of this traditional structure. There is a marked imbalance between small schools and large schools as regards the utilization of teaching resources: 76% of the national schools have less than 100 pupils; these schools take only 38% of all pupils but employ 50% of all teachers. Consequently, a great many classes are over-sized in the larger schools: over half of the pupils attending schools with seven teachers or more are in classes of over 50 pupils. Educational performance is on the whole better in the larger schools, in spite of the disadvantage of a higher pupil-teacher ratio.

From the teaching point of view, as well as that of the rational utilization of resources, the reform of the primary educational structure seems to be a key factor for the modernization of the entire educational system and consequently an important stage in the process of Ireland's economic and social development. In addition to the advantages for pupils of an improved school organisation as regards teaching efficiency, the centralization of schools could become a by no means negligible dimension in territorial development if organic links are established between educational policies and regional development policies. It goes without saying that in the present context the small school cannot play a really significant role as a local cultural centre.

Furthermore, the controversy which has arisen around this question of the centralization of primary schools gives reason to believe that a decisive test lies here for the success of the re-organisation of the educational system in Ireland. In this respect, the strategy of change adopted should take account at one and the same time of the pedagogical, economic, social and even ideological dimensions of the problem. The Irish team has suggested various strategies in this report. The Department of Education has not adopted a definite plan but it has already decided for the more or less long-term to amalgamate schools with only one class or to annex them to existing schools with two or more classes, providing pupil transport services in all cases with substantial State assistance. At the same time, as suggested by the Irish team, the 48 regional primary education inspectors are at present reviewing all school buildings in consultation with school managements; the purpose of this survey is to spot those small schools which will have in any case to be rebuilt over the next few years and could be amalgamated with other schools in a new structure or in larger premises. A systematic programme for the centralization of small schools could thus be worked out.

The justification if not the need for a new structural organisation of the primary educational system seems undeniable. The implementation of the school centralization programme within a reasonable period does not,

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as we have seen, raise only technical problems. It is no doubt by associating those concerned — school governors, teachers, parents — with the preparation and implementation of the primary school centralization policy that the aims behind that policy can be achieved.

*b*) *Curricula*

Three topics are of more particular interest in connection with the adjustment of primary school curricula to the requirements of the country's economic and social development: the length of the weekly time-table, the teaching of mathematics and the proportion of the timetable devoted to language teaching.

The weekly timetable

The duration of the average weekly timetable in Irish national schools is only 22.5 hours, broken down approximately as follows: Religion, 2.5 hours; languages (Irish and English), 10 hours; mathematics, 5 hours; other subjects, 5 hours.*

It might be significant to compare this weekly timetable with the timetable in other countries. The above-mentioned work by Mr. Poignant** gives the following data on the trend of weekly hours in the top and bottom elementary classes in certain countries:

| | |
|---|---|
| Germany | 18 to 36 hours |
| Belgium | 23.5 hours |
| France | 27.5 hours |
| Italy | 24 hours |
| Luxembourg | 27 to 28 hours |
| Netherlands | 21 to 26.25 hours |
| USSR | 26 to 29 lessons (generally 45 minutes each). |

It is obviously not sufficient just to compare the number of hours in order to conclude that there are differences in the amount of knowledge acquired during the elementary course between these countries, but the figures quoted above leave room for doubt as to whether a timetable of 22.5 hours is not too small a learning period for children. The question might be worth closer study in the light of the comments made below regarding the teaching of mathematics and languages.

Mathematics teaching

The Irish team's report notes that "algebra and geometry are taught in some (national) schools but are not obligatory in the smaller schools or in classes taught by women".*** The national school regulations thus exempt small schools as well as women teachers from teaching these subjects. In actual fact, they are sometimes taught, even where it is not compulsory to do so. However, the problem still exists of generally improving the quality of mathematics teaching in primary schools in order to give youngsters a better preparation for obtaining the science and mathematics training which are now required by modern society and in order to induce a larger number of pupils to take up the study of advanced mathematics. In this context, it is not only necessary to review the content of mathematics teaching in the primary school but also the methods of such teaching. A new curriculum and modern methods of mathematics teaching have been introduced in a number of schools, but they still have to be disseminated throughout the whole network of primary schools.

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* *Investment in Education*, p. 246.

** Raymond Poignant, *op. cit.*, p. 64.

*** *Investment in Education*, pp. 6–7.

### Language teaching

A much discussed topic in Ireland which we only wish to mention here is the respective shares taken in the primary school timetable by the teaching of the Irish language and the English language. Basing himself on the sample of schools he used for his study on "Bilingualism and Primary Education", and Irish educational psychologist Fr. John MacNamara, C.M., estimated that 42% of the pupil's total timetable in the primary school was devoted to the Irish language (not counting 2.5 hours' religious instruction), compared with 22% for the English language and 24% for arithmetic.* Not everyone agrees with this author's percentage regarding the Irish language, but it is certain that this subject takes a very large slice of the timetable in primary education.

Does this fact have any adverse effect on the rate at which children learn other subjects? J. MacNamara's researches give an affirmative reply to this question as regards the learning of English (mother tongue of 96% of the children, the author notes) and to a less extent arithmetic. But this is a preliminary survey from which it would be unwise to draw any general conclusions. It is interesting to point out that other research work is being carried out at the instigation of the Department of Education on the teaching of Irish, more especially on the efficiency of the methods used for such teaching. A first study has recently been completed in this connection: a method has been derived from a scientific analysis of spoken Irish which, if the results of the initial experiments are confirmed, will make it possible to improve the efficiency of Irish teaching and may even reduce the amount of time spent on it at school. These are measures which could have very wide repercussions at social and cultural level.

### c) *Teaching methods*

As was noted above, a high proportion of youngsters leave school without a primary Leaving Certificate. This fact is obviously linked with the general problem of educational "delays" emphasized by the Irish team, although they do not imply for all that that the position here is substantially different from what may be observed in a good number of other Western countries. While the "modal" primary completion age is between 12.5 and 13.5 it was demonstrated that, in 1963, 44% of the pupils who had reached the 5th year would complete their primary schooling at the age of 13 and 13.5% at 14 years or older, if they remained in the primary school. (In fact many proceed to the secondary school without completing sixth standard). As is the case elsewhere, this state of affairs raises questions concerning primary school teaching practice and, especially a system of promotion which does not take sufficient account of individual differences between children. The Irish educational authorities quite rightly see the solution of this problem as the crux of the renovation of primary education. This evidently requires research and experiment on teaching methods and a change of attitude on the part of teachers — which will mainly stem from a process of dissemination beginning at the teacher training college. The centralization of schools is a sort of prerequisite for this advance in teaching methods, as already noted: it would free over 1,000 teachers from small schools and thereby improve the pupil/teacher ratio in the larger schools.

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* John MacNamara, ***Bilingualism and Primary Education: A Study of Irish Experience***, Edinburgh University Press, 1966, p. 132.

The initiative for research on teaching has traditionally been left to the University, but the latter does not seem to have been in a position to give it the necessary attention. The function of research and experiment is tending nowadays to develop in the Department of Education and the teacher training colleges. The Department now has its own group of educational psychologists; it is giving its support for the recruitment of research workers, for example, at St. Patrick's Teachers Training College; it is planning to set up a commission in which the Department and the higher educational establishments would work together in order to prepare and implement a systematic programme of research on teaching methods. Matters are already in hand as we have seen in connection with the teaching of Irish. At the same time, remarkable successes have been obtained in this sphere in certain special schools, particularly by the Dublin School for Deaf Children, as was observed during a visit by one of the members of the examining group.

### d) *Teacher training*

The progress of primary education depends in the first instance on the quality of the training for new teachers and on the re-training of teachers in service; there is no need to insist on this point. It seems now that general steps should be taken to modernize teacher training. The Irish authorities have already decided to take action in this direction; they have recently instructed a Committee to undertake a complete review of all the aspects of teacher training. At the same time, they recognize the need for further action in order to retrain teachers, especially in the field of mathematics teaching, but the financial obstacle is putting a brake on such endeavours.

The examiners were able to visit the most important teacher training college for men, St. Patrick's Teachers College, and were very kindly received by the President of that institution, Rev. Dr. Cregan. St. Patrick's Teachers College has recently been rehoused in modern magnificently appointed buildings and rather symbolizes the effort of modernization in teacher-training undertaken by the Department of Education. This institution can take 300 resident students (they are housed in groups of 30 in 10 halls of residence which they themselves run). The students undertake to teach for five years in a national school; they do not receive any scholarships but only loans which they must repay when their studies are over.

As with the other teacher training colleges, their admission depends on possession of the secondary school leaving certificate with honours in Irish; in actual fact, the students at this establishment have an average of four or five honours in that Certificate. Owing to the selection made at the outset, 92 % of the students finish the course. It is interesting to note that very few of these students are recruited in Dublin itself. Teaching practice takes place partly in Dublin and partly in the future teacher's own locality. The curriculum enables those who wish to do so to sit for examinations giving them the right to exemption from the first year of study at the University. Mathematics is not one of the compulsory subjects; the Irish report mentioned in this connection that no girls took mathematics in the final examination in 1963 in the teacher training colleges and only 14 men did so out of a total of 353 girls and 91 men "although about a quarter of their time as teachers will be devoted to mathematics — in most cases, this is confined to arithmetic".* The new directions of modern teaching have so far little affected tuition at St. Patrick's Teachers College, but it is endeavouring to train a team of research workers whose presence will encourage advances in teaching methods within the institution itself. The Examiners' Group was not able to visit the college which trains most of the Catholic women teachers, but it is generally known that St. Patrick's has nevertheless made the most progress thus far in training for modern pedagogical practice.

## C. POST-PRIMARY EDUCATION

At the end of his report on education in the Common Market countries, Mr. Poignant writes: "The preceding developments have brought to light what we have called the Common Market countries' "backlog" in the rate of managerial staff training (especially scientific and technical staff) and the "democratization" of longer study... Among the various types of measures taken or which are likely to be taken, we think that the reform of the secondary school structure is of particular importance for the solution of the twofold problem which we have just described. Thus, as regards the increase in the rate of managerial staff training and its democratization, the key of the problem does not mainly lie at the level of higher education — without prejudice to any measures taken at that level... — but at the level of secondary education".** The same diagnosis could probably be made in the case of Ireland. The problems at post-primary level are in any case the same as those which arise in the countries to which Mr. Poignant's comments apply: these are the two closely associated problems of enrolment and the orientation of teaching at this level of education in the light of the requirements of economic and social development. Having regard to these two basic problems, we shall now consider certain aspects of the structure of post-primary education in Ireland, shool organisation, curricula and teacher training.

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* *Investment in Education*, page 262.

** R. Poignant, *op. cit.*, page 275.

### a) *Educational structure: co-ordination between general education and vocational and technical education*

What has already been said in connection with rates of enrolment at post-primary level and the imbalance between the economy's requirements and the supply of a labour force in possession of a qualification corresponding at least to the secondary school Intermediate Certificate will suffice to demonstrate the need for the reorientation of post-primary education. Even before the Irish report was published, the Irish authorities had begun a thorough review of the educational system at this level. On 20th May 1963, the Minister for Education – at that time Dr. P.J. Hillary – set out the main lines of a plan to reform the structure of post-primary education based on two main targets: improved co-ordination between general educational and vocational and technical education; development and revaluation of vocational and technical education. The Minister then proposed the establishment of comprehensive schools giving a three-year course at junior post-primary level, as well as the introduction of a Technical Leaving Certificate and the creation of regional technical colleges at senior level.

Junior level (first cycle)

In January 1966, the Minister for Education was in a position to announce the introduction in September 1966 of measures to facilitate the improved co-ordination of junior post-primary education. In view of the importance which should be attached to this document, the Circular in which the new measures are described is annexed to the present report.

The essential aim of this policy is to create a comprehensive system based on organic co-operation between general secondary education and vocational continuation education. To this end, a new curriculum has been worked out enabling pupils from vocational schools as well as those from general secondary schools to sit for the same examinations in order to obtain the Intermediate Certificate as from 1969. As this curriculum will require three years of study, the length of the continuation course has been extended from two to three years. The Day Group Certificate will not be abolished: some pupils, for example those who take apprenticeship courses, can take this Certificate after two years' study in vocational schools. The aim is so far as possible to encourage the spread of school attendance up to Intermediate Certificate level. These changes will facilitate the system's adjustment to the extension of compulsory school attendance from 14 to 15 years of age, which is due to come into force in 1970.

The new three-year curriculum will be given in the three comprehensive schools which open their doors in 1966–1967. These new institutions provide post-primary education for all youngsters in the region they serve. They are public institutions and the Department of Education is closely associated with their management. They are regarded in some measure as pilot schools and for the moment there are no plans to increase their number rapidly. As regards the introduction of a comprehensive system, the Department at present attaches greater importance to the establishment of close co-operation at local level between secondary schools and vocational schools. It encourages them to co-ordinate their activities with a view to the maximum utilization of human and material resources and especially with a view to providing pupils with more varied curricula, better suited to their individual requirements. A decisive advance in the progress of the educational system as a whole will be made if the Department achieves its target of eliminating the frontiers between traditional secondary education and vocational education.

Senior level (second cycle)

As far as the senior post-primary level is concerned, the authorities are not yet in a position to carry out the projects announced in 1963, although they have not changed the targets proposed at that time. In consultation with those concerned, the Department has undertaken a review of curricula at this level as a preliminary to introducing a Technical Leaving Certificate of equivalent standard to the secondary Leaving Certificate and which it is hoped will permit access to several university faculties (science, engineering, architecture, commerce, etc.). The intention behind these projects seems not to be to establish a single type of institution at this level but, as a junior level, an integrated system through which the students could move freely according to their individual orientation and subsequent destination: labour market or university faculty. It remains to be specified how co-ordination is to be established between the technical schools and the University and between the secondary schools and the existing technical schools or the regional technical colleges it is planned to create.

In the context of the current or prospective changes in the structure of post-primary education, the problem of the educational or vocational guidance of pupils becomes very important. A general policy should be worked out on this point where it seems, according to the Irish report, that individual decisions are often made quite arbitrarily at the various levels of the educational system.*

### *b) School organisation*

The most salient feature of the educational system at post-primary level is the wide scatter of schools and consequently the existence of a very large number of small schools. This state of affairs is therefore similar to that described in connection with the primary schools from the point of view of the efficient utilization of human and material resources. In 1963–1964, out of 608 secondary schools (including secondary tops), 233 had less than 100 pupils and 388 less than 150 — the minimum fixed by the Department for the grant of financial assistance for building purposes. Nearly half the vocational schools had less than 100 pupils. In Chapter XII of its report, the Irish team suggests the preparation of a "map" of secondary education dividing the country into a number of regions or zones each providing all the post-primary educational services for all youngsters in its area. The Education Ministry has adopted the principle of this suggestion in the context of the co-ordination of general education and vocational education. It has, moreover, undertaken a systematic survey of *a*) the post-primary clientele in each region, *b*) the school equipment required, *c*) existing school equipment and *d*) future requirements in this respect.

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* ***Investment in Education*, page 390.**

Until quite recently, the establishment of secondary schools was left almost entirely to private initiative. Since 1964, the State has been offering financial assistance in the form of grants for school building. This assistance is subject to certain conditions: a minimum number of 150 pupils; requirement to provide a gymnasium, a library, etc. It is considered that this measure will gradually help to improve the quality of secondary shools and their efficiency. However, the combined establishment of an integrated network of post-primary schools in the context of the co-ordination of educational structure will provide the solution which is likely to yield significant results most rapidly. It may be noted in this connection that, in the opinion of one of the officials responsible for Irish secondary education, the optimum size of a post-primary school is 400 to 500 pupils.

### c) *Curricula*

The traditional orientation of the Irish secondary school has been pointed out in *Investment in Education*. This, according to the authors, leads to an inadequate correspondence between the curricula studied by pupils and the requirements of the economy. Let us take two examples concerning, first, the study of modern continental languages and, secondly, the study of mathematics and science.

With an eye to the liberalization of international trade and Ireland's possible participation in the European Economic Community, the authors of the report emphasize the insufficient study of continental languages such as French, German, Spanish and Italian. In the 1963 Leaving Certificate examinations, only 165 boys were awarded honours for French, 16 for Spanish, 6 for German and 1 for Italian. It should be noted, however, that, thanks to action by the Department of Education, very notable progress has been made in recent years. In 1960–1961, only 26.5% of secondary school boys studied French; by 1964–1965, this proportion had risen to 43%. Confined to very small numbers in 1960–1961, the teaching of the other three languages mentioned has advanced quite rapidly; thus, the proportion of boys studying Spanish has risen in four years from 1.2 to 2.9%; for German, the rise has been from 0.2 to 1.3%, and for Italian from 0.2 to 1.3%. The small size of schools seems, according to the Irish report, to be an obstacle to the development of language teaching.

In the same way, there seems to be a close correlation between the development of science and mathematics teaching. This factor would partly explain the relatively small proportion of secondary school pupils who study science (see Table 11). But the fundamental factor is no doubt the actual structure of the secondary school curriculum, which puts great emphasis on the classical side; the authors of the report estimate that, in 1962–1963, secondary school pupils devoted about half their time to traditional subjects and less than 10% to physics and biology. Furthermore, the secondary schools, just like the vocational schools, have only a small number of university mathematics and science graduates.* Here, the educational system has to put up with competition from industry. Science teachers are given a salary increment in the secondary schools, though not in the vocational schools, but it seems that new means will have to be found in order to attract more graduates with special science and mathematics qualifications to teaching. The problem will obviously become easier to solve as the number of secondary school leavers going to the university science faculties increases.

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* Science teachers in the vocational schools are now all qualified graduates, particularly trained for teaching biology in the rural schools.

The questions raised in connection with the modern continental languages, science and mathematics lead finally to an examination of post-primary education as a whole – both as regards content as well as teaching methods – in the context of adjustment to the new requirements of economic development and social progress. Steps have already been taken in this direction in connection with the review of curricula. The changes announced in the educational structure and the measures which will be taken in order to co-ordinate schools' activities and resources will also without a doubt favour the progress of this sector of the school system. The pace at which this progress will be made is of the highest importance to the country's future: it is for this reason that the Irish team insists so much on the creation in the Department of Education of a research unit provided with the necessary facilities for a constant evaluation of the educational system in the light of the requirements to be met.

### *d) Teacher training*

Secondary schools recruit their teachers on their own initiative. The Department intervenes only indirectly through grants and through its system of inspection. The Department pays higher salaries (known as " incremental salaries ") to teachers who have a university degree in addition to the Higher Diploma in Education and who have sufficient command of the Irish language. There is no general system of probation for new teachers in secondary schools as is the case in national schools and vocational schools, where beginner teachers are subject for two years to assessment and criticism by Department of Education school inspectors. As regards the selection of teachers and the quality of teaching in general in the secondary schools, the Department's inspectors have no other power than that which they can acquire through their prestige as advisors to school headmasters. It is here that one of the most serious problems for secondary education arises: the inadequate number of specialists, i.e. teachers with university degrees in the subjects they have to teach. It goes without saying that the amalgamation of secondary schools which are too small will facilitate greater specialization among teachers.*

Secondary school teacher training is provided by the University, which awards the Higher Diploma in Education to students in possession of a first university degree. The Higher Diploma requires only one year of part-time study: students follow a programme comprising ten hours of classwork per week and four hours of teaching practice in a secondary school, in principle under the supervision of university teachers. The private status of secondary schools does not facilitate the organisation of teaching practice and students preparing for the Diploma must in fact themselves take the initiative in order to find places as trainees in schools. Both those responsible for teacher training at the University and the Department of Education authorities agree that there are shortcomings in the present system of secondary school teacher training. The Department has instructed a committee to study this problem. It is also probable that the report by the Commission of Enquiry on Higher Education will contain recommendations on this subject. But for the committee and the Commission, the essential problem seems to be the lack of co-ordinating machinery between the Department and the University with regard to secondary school teacher training — as well as, more generally, with regard to the various aspects of the development of the educational system.

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* See in this connection the figures in Table 10.16 in ***Investment in Education***, p. 281.

The Department of Education organises training courses for non-graduate teachers in second level education, in those subjects in which university courses are not available. These teachers work largely, but not exclusively, in Vocational Schools. Entry to training courses is on a strictly competitive basis, and the duration of the courses varies with the nature of the course.

Teachers of Domestic Science (Home Economics) are trained at two colleges, one in Dublin and the other in the Provinces. The admission requirement is the Senior Leaving Certificate of the Secondary Schools and the courses last three years. The examinations are carried out and the Diplomas awarded by the Department of Education.

Teachers of woodwork and metalwork are recruited from industry on the basis of craft skill and level of technical education achieved. Maintenance scholarships are awarded and the course is of two years' duration. The examinations and the standards are controlled by the Department.

Teachers of Art are produced largely in the National College of Art in Dublin but the necessary examinations can be taken in the larger provincial Schools of Art. The training courses are now being re-organised to take account of modern approaches in teaching methods and to strengthen the pedagogic side of the training.

Teachers of Rural Science are normally recruited from University graduates in Agricultural Science, but owing to periodic shortages of teachers in this category for work in Rural Vocational Schools, the Department organises special training courses from time to time. The admission requirement is the Secondary Schools' Senior Leaving Certificate plus experience in agricultural work or rural affairs. The courses hitherto have been of two years duration, but are now extended by an additional third year. The course contents and the examinations are controlled by the Department.

## D. THIRD LEVEL: HIGHER EDUCATION

The analyses made in *Investment in Education* stop short for the most part, as will be noted, on the threshold of higher education. The authors were obliged to take account when interpreting their terms of reference of the existence of a Commission of Enquiry instructed by the Minister for

Education in 1960 to enquire into all the aspects of higher education. Under the Chairmanship of the Chief Justice of Ireland, this Commission has 27 members. It has not yet completed its work and expects to submit its report to the governmental authorities by the end of the current year, but it is not impossible that the interval may be longer. The Department of Education must obviously wait for the Commission's recommendations before reviewing its policy concerning the Universities and higher education in general. This is therefore not the time to begin a discussion on existing policy or on the policy which will have to be worked out in order to solve the problems which arise at higher educational level. It may be useful, however, for the purposes of the present report, to sketch out a summary diagnosis of the present position as seen in the light of the requirements of economic growth and the general progress of Irish society.

One of the first problems concerns access to higher education for young people from all social classes. We have already sufficiently emphasized the selective nature of university recruitment according to the social origin of students. In order to remedy this state of affairs, the Irish team suggests quite explicitly a thorough reform of the system of assistance for students and more generally of the entire system of finance for the Universities.

From the point of view of the country's future requirements, one particularly important dimension of the problems of higher education is the development of science teaching and research. From 13,153 in 1963–1964, the number of University enrolments will rise to about 19,000 in 1970–1971, according to the projections made by the authors of the Irish report. The bias in favour of the humanities will still be very strong, it is expected that 10,770 out of these 19,000 will enrol in the Faculties connected with the humanities sector (but including the social sciences and commerce), while the Faculties of Science will only have 2,670 and the Faculties of Engineering and Architecture 1,160. The number of students in medicine will be 3,350 and in agriculture 1,050.* Future engineers, architects and scientists will therefore account for only 20% of total university entrants. Without losing sight of the special difficulties associated with the phenomenon of emigration, the Irish report emphasizes the need to increase this proportion having regard to the future requirements of the country's economy. The most decisive action in this respect will find its place at post-primary and even primary level; the progress which will be made in science and mathematics teaching should encourage the orientation of a greater number of students to the science faculties. In the same direction, the projected introduction of a Technical Leaving Certificate opening the door to certain university faculties will speed up the recruitment of future scientists. The Commission of Enquiry on Higher Education for its part will no doubt propose certain measures designed to ensure the development of this sector of higher education. At the same time, it should be noted that recruitment by the Faculties of Science and Engineering has probably been held up over the last few years through lack of premises, particularly at University College, Dublin. Work has already begun on resettling this establishment on a vast site on the outskirts of the city; since 1965–1966, the Faculties of Science and Engineering occupy the first buildings put up in what will become an impressive University campus once the building plan has been completed.

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* *Investment in Education*, p. 47, Table 3.5.

It may be presumed that the Commission of Enquiry on Higher Education will give special attention in its recommendations to the field of research and post-graduate studies in the Universities. What has been accomplished so far in this field is still largely below requirements. This state of affairs is obviously mainly due to the insufficient financial resources channeled to research laboratories, libraries, scholarships for doctorate studies and the recruitment of research fellows.

The Commission of Enquiry on Higher Education will probably strongly recommend the State to make substantial increases in the sums devoted to higher education. It will also no doubt lay emphasis on the planning effort needed in order to secure the efficient utilization of these sums having regard to the country's priority requirements. At the present time, the central problem at higher educational level seems precisely to arise in connection with the co-ordination of university development in the more general context of the orientation of the educational system as a whole. As we have seen, the State is responsible for a large part of university expenditure but the budget estimates submitted by the latter are not systematically examined according to a whole series of criteria rationally determined on the basis of clearly defined policies. This is a field in which the need for improved co-ordination between the Department of Education and the Universities – and between the Universities themselves – is particularly evident, as pointed out by the authors of the Irish Report. The same need for co-ordination is also apparent between post-primary education and higher education: for example, the University seems sometimes to have announced changes in the conditions of admission to certain Faculties without having previously studied the matter in consultation with the authorities in the Department of Education. Similarly, secondary school teacher training cannot be reformed without close co-operation between the Department and the University. The Commission of Enquiry on Higher Education is expected to recommend an appropriate structure for the establishment of organic relations between the State and the University. The examining group considers that this is a crucial point for the progress of the Irish educational system.

# V

# CONCLUSION: OVERALL STRATEGY OF EDUCATIONAL DEVELOPMENT

One general conclusion stands out very clearly from the remarkable survey carried out by the authors of *Investment in Education*: at its present stage of development, Ireland is faced with the necessity to carry out a thorough reform of its educational system. As demonstrated by the present report, the Irish authorities have in the main endorsed the diagnosis of the team responsible for the survey. They have, moreover, already prepared policies or projects on several points which suggest major elements required in an overall plan for the renewal and reorientation of the educational system in the light of the requirements of economic and social development. How will this plan be carried out? What overall strategy will enable the targets fixed to be achieved?

As brought out in the Irish Report in often very explicit terms, the first factor in such a strategy is the leadership which must be exercised by the Department of Education, principally by taking the step of creating a "development unit" responsible for carrying out research and collecting the data necessary for a continuous evaluation of the productivity of the educational system and for the preparation of educational policies constantly attuned to the country's requirements. However, whatever action the Department may take will not suffice to ensure the success of the reforms planned. All those responsible for education at all levels and, in short, the entire community must be involved in a dynamic process of change. Seen in this light, the key factors in the strategy are participation and information.

The Irish authorities have already decided to set up a National Advisory Council on Education consisting of delegates from the main teacher associations and school managements, as well as representatives of the various sectors of economic and social activity. The creation of this body will no doubt facilitate participation by the community in the preparation of policies. But the implementation of these policies and accomplishment of the reform depend in the last analysis on action by teachers and school authorities as well as on the support of parents and local communities. How are the "producers" in the educational system — teachers and school managements — to be induced to take an active part in the proposed enterprise? How in other words are the educators to be made not only the activators of educational development but really responsible for it? Perhaps these questions raise special difficulties in a context where school organisation is very decentralized and largely depends on private initiative, but they seem nevertheless to be of major importance. Would it not be best to work out a precise plan of action in this connection? The function of the school inspection system might for example be redefined in this light, with the inspectors giving the educators the lead in each particular sphere. Similarly, the teacher training establishments and the teaching research centres could, if provided with appropriate resources, fully play their part as the poles of development of the educational system. Lastly, with the co-operation of teachers' and head teachers' associations, an élite might be recruited among the educators who would be given special training – e.g. on courses – in order to prepare them to act as the leaders of a teaching reform in their sphere.

The participation of educators as well as parents and the general public in educational development necessitates adequate information on all aspects of the evolution of the educational system and on the repercussions of that evolution on the country's economic and social progress. *Investment in Education* has drawn the attention of public opinion to problems formerly discussed in fairly restricted circles. This report has in some respects carried the debate on education into the public square. As we have already noticed, it has awakened interest. What steps do the authorities expect to take in order to keep the various member groups of society well informed about educational matters? As was pointed out by one of the persons interviewed by the examining group, it is the community which will finally determine by its attitude and its opinions the order of priority among the options for which the State is responsible. It will agree to provide the financial effort required for the progress of education only if it is convinced of the need for that effort. In this respect, Ireland is faced with a problem which arises just as acutely in all countries.

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### *Table 1.* NUMBER OF FULL-TIME PUPILS, BY LEVEL OF EDUCATION, 1963–1964 AND 1964–1965

| Type of school or college | 1963–1964 | 1964–1965 |
|---|---|---|
| *First level* [1] | | |
| National schools | 472,124 | 473,894 |
| Special schools | 2,793 | 3,523 |
| Non-aided schools | 21,151 | 23,269 |
| Other schools [2] | ... | 16 |
| Total, first level | 496,068 | 500,702 |
| *Second level* | | |
| Secondary schools and "secondary tops" | | |
| Junior (first cycle) | 70,088 | 74,089 |
| Senior (second cycle) | 24,556 | 25,231 |
| Vocational schools | | |
| Continuation | 28,969 | 29,613 |
| Technical | 1,013 | 963 |
| Other aided establishments [3] | 1,493 | 1,522 |
| Non-aided secondary schools | 250 | 258 |
| Non-aided commercial schools | 2,139 | 2,153 |
| Non-aided religious schools | 134 | 126 |
| Other non-aided schools | 129 | 135 |
| Total, second level | 128,771 | 134,090 |
| *Third level* | | |
| Universities [4] | 13,153 [5] | 13,675 |
| Teacher training: | | |
| – for national schools | 1,108 | 1,131 |
| – for vocational schools | 66 | 37 |
| – for domestic science teaching | 163 | 166 |
| Vocational (technology) | 594 | 852 |
| Other aided [6] | 290 | 297 |
| Non-aided teacher training colleges | 253 | 264 |
| Religious establishments | 1,786 | 1,775 |
| Total, third level | 17,413 | 18,197 |
| GRAND TOTAL | 642,252 | 652,989 |

1. The figures given do not include enrolments in schools taking children only under the age of 6.
2. This category includes delinquents undergoing full-time education.
3. This category includes enrolments in establishments directed or aided by the Department of Agriculture, Lands and Defence, as well as prisoners undergoing full-time education. However, the Army Apprentice School is included under the heading « Vocational schools: technical ».
4. Including students at St. Patrick's College, Maynooth, who are reading for National University degrees; the other students at this College are included below under the heading "Religious establishments". Also including students at the Royal College of Surgeons.
5. Including 3,278 foreign students.
6. National College of Art, College of Pharmacy, Military College.

*Sources:* At 1st February, 1964: *Investment in Education*, Table 1.2. At 1st February, 1965: Department of Education, Dublin.

### *Table 2.* RATES OF SCHOOL ATTENDANCE, IRELAND, 1963–1964, 1964–1965 AND PROJECTION FOR 1970–1971

Percentages

| Age or age-group | 1963–1964 | 1964–1965 | Projection for 1970–1971 |
|---|---|---|---|
| 4-5 ............ | 58.0 | 65.9 | 60.0 |
| 6-12 ........... | 98.8 | 99.4 | 99.5 |
| 13 ............. | 94.6 | 94.0 | 98.4 |
| 14 ............. | 66.4 | 66.2 | 95.8 |
| 15 ............. | 51.5 | 51.5 | 69.7[2] |
| 16 ............. | 36.8 | 37.2 | 48.6 |
| 17 ............. | 24.8 | 24.8 | 32.7 |
| 18 ............. | 14.5 | 12.8 | 18.6 |
| 19 ............. | 8.8 | 8.1 | 12.2 |
| 20 and over[1]. | 6.6 | [illegible] | 6.3 |
| Total ........ | 59.9 | 60.1 | 60.9 |

1. Rates established by comparison with the population in the 20-24 age-group.
2. This figure would have to be adjusted upward to correspond to the new school-leaving age of 15 by 1970–71.

*Sources:* Rates observed at 1st February, 1964 and rates projected at 1st February, 1971: *Investment in Education*, Tables 1.2 and 3.2. Rates observed at 1st February, 1965: Department of Education, Dublin.

### *Table 3.* RATES OF FULL-TIME ATTENDANCE AT SECOND-LEVEL ESTABLISHMENTS BETWEEN 15 AND 17 YEARS OF AGE: COMPARATIVE DATA

Percentages

| Country | Year | Rates | | |
|---|---|---|---|---|
| | | 15 years | 16 years | 17 years |
| IRELAND .............................. | 1963–1964 | 49.9 | 36.3 | 23.3 |
| | 1964–1965 | 50.1 | 36.6 | 23.1 |
| England and Wales[1] .................... | 1962–1963 | 47.4 | 28.5 | 15.5 |
| Belgium[2] .................................. | 1962–1963 | 64.8 | ... | 38.1 |
| United States of America[3] ............ | 1960–1961 | 90.0 | 85.0 | 70.0 |
| France[2] .................................... | 1962–1963 | 55.1 | ... | 33.7 |
| Italy[2] ....................................... | 1962–1963 | 31.7 | 26.2 | 23.5 |
| Netherlands[2] ............................. | 1959–1960 | 59.5 | 45.4 | 33.6 |
| Germany ................................. | 1960 | 36.9 | 25.0 | 17.6 |
| USSR[3] ..................................... | 1963–1964 | 47.0 | 45.0 | 36.0 |

1. Excluding advanced further education (Poignant, *op. cit.*, page 126).
2. Including teacher training.
3. Estimates.

*Sources:* Ireland: *Investment in Education*, Table 1.2 for 1963–1964 and figures provided by the Department of Education for 1964–1965.

Other countries: Raymond Poignant, *L'enseignement dans les pays du Marché Commun*, Paris, Institut pédagogique national, 1965, pages 113-148.

## *Table 4.* RATES OF SCHOOL ATTENDANCE, BY SEX IRELAND, 1964–1965

Percentages

| Age or age-group | Boys | Girls | Total |
|---|---|---|---|
| 4-5 ………… | 64.1 | 67.8 | 65.9 |
| 6-12 ……….. | 99.4 | 99.4 | 99.4 |
| 13 ………….. | 93.3 | 94.6 | 94.0 |
| 14 ………….. | 64.1 | 68.4 | 66.2 |
| 15 ………….. | 47.2 | 56.1 | 51.5 |
| 16 ………….. | 34.1 | 40.4 | 37.2 |
| 17 ………….. | 23.9 | 25.8 | 24.8 |
| 18 ………….. | 14.1 | 11.3 | 12.8 |
| 19 ………….. | 10.3 | 5.8 | 8.1 |
| 20 and over[1]. | 8.9 | 3.4 | 6.3 |
| Total ……… | 59.9 | 60.4 | 60.1 |

[1] Rates established by comparison with the population in the 20-24 age-group.

*Source:* Department of Education, Dublin.

## *Table 5.* PUBLIC EXPENDITURE ON EDUCATION AS COMPARED WITH TOTAL PUBLIC EXPENDITURE COMPARATIVE DATA

Percentages

| Country | 1960 or 1960–61 | 1961 or 1961–62 | 1962 or 1962–63 | 1963 or 1963–64 | 1964 or 1964–65 | 1965 or 1965–66 | 1966 or 1966–67 |
|---|---|---|---|---|---|---|---|
| IRELAND .. | 8.7 | 8.6 | 9.2 | 9.2 | 9.6 | 10.3[2] | 10.0[3] |
| Belgium ….. | 15.2 | 17.9 | 18.2 | 17.8 | 17.1 | – | – |
| France ……. | 13.9 | 14.1 | 15.2 | 16.6 | 17.3 | – | – |
| Italy ………. | 13.8 | 13.85 | – | – | – | – | – |
| Netherlands .. | 16.0 | 16.2 | 18.3 | 20.1 | 20.7 | – | – |
| Germany[1]…. | 9.8 | – | – | – | – | – | – |
| USSR …….. | 10.2 | 10.7 | 10.3 | 10.7 | – | – | – |

[1] Including expenditure by local authorities (Bund, Länder, cities, States, communes).

[2] Calculated on the basis of preliminary figures.

[3] Calculated on the basis of estimates.

*Sources:* Ireland: 1966 Budget (Stationery Office, Dublin) and Economic Statistics, 1963 and 1964 (Pr. 7050 and Pr. 7640) (Stationery Office, Dublin).

Other countries: Raymond Poignant, *L'enseignement dans les pays du Marché Commun*, Paris, Institut pédagogique national, 1965, pages 113-148.

### *Table 6.* TOTAL EXPENDITURE ON EDUCATION AS A PERCENTAGE OF GROSS NATIONAL PRODUCT[1] COMPARATIVE DATA 1961 OR 1961–1962

| Country | Total expenditure on education as percentage of GNP | Capital expenditure as percentage of GNP |
|---|---|---|
| IRELAND .............. | 4.1 | 0.51 |
| Belgium .................... | 4.68 | 0.56 |
| United States of America ................ | 5.55 | 1.08 |
| France ...................... | 3.56 | 0.62 |
| Italy ........................ | 3.88 | 0.58 |
| Netherlands .............. | 5.1 | 0.87 |
| Germany .................. | 3.17 | 0.76 |
| United Kingdom ........ | 4.38 | 0.66 |
| USSR[2] ...................... | 4.94 | 0.68 |

1. GNP assessed at market prices. Apart from Ireland and the USSR, the data used were published by the OECD.
2. For the USSR, the percentages shown relate to "re-assessed" and not to official GNP. Soviet GNP is not calculated in the same way as in the Western countries (OECD estimates); in particular, it excludes a large number of "tertiary" activities; it is therefore reduced by about 20 % as compared with the estimates made in the OECD countries. (R. Poignant, *op. cit.*, Table 100, note 2).

*Sources:* Ireland: *Investment in Education*, Tables 5.21 (a) and (b).

Other countries: Raymond Poignant, *L'enseignement dans les pays du Marché Commun*, Institut pédagogique national, Paris, 1965, pages 235-255.

## *Table 7.* EDUCATIONAL TARGETS IN THE LIGHT OF LABOUR FORCE REQUIREMENTS ACCORDING TO MAJOR OCCUPATIONAL CATEGORIES: ANALYSIS OF INFLOWS FOR THE PERIOD 1961–1971

| Occupational category | Percentage distribution of inflows by highest qualification held | | | | |
|---|---|---|---|---|---|
| | No post-primary certificate | Post-primary certificate | | Third-level qualification | Total |
| | | Junior certificate | Senior certificate | | |
| Professional and technical | – | – | 35 | 65 | 100 |
| Employers, managers and senior salaried employees | – | 20 | 60 | 20 | 100 |
| Other clerical (intermediate non-manual) | – | 70 | 30 | – | 100 |
| Skilled manual workers | 40 | 60 | – | – | 100 |
| Farmers | 65 | 20 | 10 | 5 | 100 |
| Others | 65 | 30 | 5 | – | 100 |
| Non-active population (home duties, etc.) and emigration | 67 | 16 | 12 | 5 | 100 |

*Source: Investment in Education*, page 199, Table 8.1.

## *Table 8.* LABOUR FORCE SUPPLY AND DEMAND BY EDUCATIONAL QUALIFICATION: FLOW COMPARISON, PERIOD 1961–1971

Thousands

| Category | Total | Third-level certificate or study | Second-level | | No post-primary qualification |
|---|---|---|---|---|---|
| | | | Senior certificate | Junior certificate | |
| Total supply | 510 | 35 | 85 | 120 | 270 |
| Expected supply to non-active population[1] | 60 | 3 | 7 | 10 | 40 |
| Total supply to labour force | 450 | 32 | 78 | 110 | 230 |
| Labour force demand | 450 | 31 | 73 | 186 | 160 |
| Total demand[2] | 510 | 34 | 80 | 196 | 200 |
| *Labour force surplus or deficit* | – | + 1 | + 5 | – 76 | + 70 |
| Average annual surplus or deficit | – | Negl. | + 0.5 | – 7.6 | + 7.0 |

1. Including emigration.
2. Non-labour force demand is taken as equal to expected supply to the non-labour force (including emigration).

*Source: Investment in Education*, page 201, Table 8.4.

## *Table 9.* PROFESSIONAL AND TECHNICAL PERSONNEL PROJECTED TO 1976

Thousands

| Category | 1951 | 1961 | 1966 | 1971 | 1976 |
|---|---|---|---|---|---|
| Physicians, surgeons and dentists | 3.4 | 3.5 | 3.7 | 4.0 | 4.3 |
| Other medical personnel, pharmacists and dispensers | 15.5 | 16.9 | 17.8 | 19.0 | 20.2 |
| Higher technical (medical) | 0.5 | 0.9 | 1.4 | 2.0 | 3.0 |
| Veterinary surgeons | 0.5 | 0.7 | 0.8 | 1.0 | 1.2 |
| Religious | 20.3 | 22.0 | 23.9 | 25.8 | 27.9 |
| Teachers (lay) | 16.0 | 18.3 | 20.4 | 22.8 | 25.4 |
| Engineers, surveyors, and architects * | 2.6 | 3.8 | 4.5 | 5.5 | 6.6 |
| Scientists * | 0.5 | 1.3 | 2.3 | 4.0 | 7.0 |
| Draughtsmen * | 0.6 | 0.8 | 1.0 | 1.5 | 2.0 |
| Other professional | 4.7 | 5.3 | 6.0 | 7.0 | 8.4 |
| Accountants | 1.8 | 2.4 | 2.7 | 3.2 | 3.7 |
| Librarians | 0.4 | 0.4 | 0.5 | 0.7 | 0.9 |
| Social welfare workers | 0.4 | 0.5 | 0.7 | 1.0 | 1.4 |
| Total (A) | 67.9 | 78.8 | 89.5 | 104.0 | 119.5 |
| Total labour force | 1,262 | 1,108 | 1,140 | 1,172.5 | 1,222.5 |
| *Professional and technical as percentage of total labour force* | *5.4* | *7.1* | *7.8* | *8.9* | *9.8* |
| Total (B): scientific and technical personnel (total of items marked *) | 4.4 | 7.9 | 11.1 | 16.0 | 23.6 |
| *(B) As percentage of (A)* | *6.5* | *10.0* | *12.4* | *15.4* | *19.7* |
| *(B) As percentage of total labour force* | *0.35* | *0.71* | *0.97* | *1.36* | *1.93* |

*Source: Investment in Education*, page 189, Table 7.6.

## *Table 10.* NATIONAL SCHOOLS[1]: NUMBER OF PUPILS AND TEACHERS, BY SIZE OF SCHOOL, 1962–1963

| Size of school (by number of teachers employed) | Number of schools | Number of teachers | Number of pupils | Pupil/teacher ratio |
|---|---|---|---|---|
| 1 teacher | 736 | 736 | 13,185 | 17.9 |
| 2 teachers | 2,458 | 4,916 | 129,080 | 26.3 |
| 3 teachers | 878 | 2,634 | 87,343 | 33.2 |
| 4-6 teachers | 405 | 1,875 | 75,744 | 40.4 |
| 7 teachers and over | 344 | 3,918 | 177,268 | 45.2 |
| Total | 4,821 | 14,079 | 482,620 | 34.3 |

[1] Including secondary tops but excluding special schools.

*Source: Investment in Education*, page 226, Table 9.2.

## *Table 11.* PERCENTAGE OF STUDENTS STUDYING CERTAIN SUBJECTS IN THE TWO SECONDARY CYCLES, 1962–1963

| Subject | Boys | | Girls | |
|---|---|---|---|---|
| | Intermediate cycle | Leaving cycle | Intermediate cycle | Leaving cycle |
| Latin | 95.2 | 88.3 | 48.4 | 38.5 |
| History | 100.0[1] | 64.3 | 100.0 | 73.1 |
| Geography | 100.0[1] | 80.9 | 100.0 | 89.6 |
| Mathematics | 100.0[1] | 99.3 | 99.9 | 82.3 |
| Science (intermediate) | 74.0 | - | 25.3 | - |
| Chemistry | - | 31.7 | - | 4.8 |
| Applied mathematics | - | 10.9 | - | - |
| Physics | - | 28.8 | - | 2.0 |
| Physics and chemistry | - | 7.2 | - | 4.7 |
| General science | - | 5.2 | - | 4.7 |
| Physiology and hygiene | - | 1.0 | - | 41.8 |

[1] Compulsory subjects.

*Source: Investment in Education*, page 276, Table 10.12.

*Part two*

# THE CONFRONTATION MEETING

# I

# BASIC CONSIDERATIONS FOR EDUCATIONAL POLICY AND PLANNING IN IRELAND

## A. INTRODUCTORY REMARKS BY THE EXAMINING GROUP

On behalf of the examining group, Professor Henri Janne made one or two general comments as an introduction to this discussion. He first of all emphasized that, as far as education was concerned, Ireland seemed in many respects to be a special case among the OECD Member countries. This was true in the first place, because the structure of the educational system in that country was decentralised and private institutions or bodies played an important role in it. In the second place, there was the problem of teaching a national language which was as yet little used in the population's ordinary life but was of great cultural importance. Lastly, there was the feature, whose implications were very serious, that emigration takes a more than negligible annual toll of the country's graduates. Thus, there exists the paradoxical situation that, even with its limited resources, Ireland provides much more prosperous countries with technical assistance by sending them substantial numbers of graduates.

Ireland's educational problems are experienced in varying degrees, reflecting their particular situation, by all the countries represented in the CSTP and this is the basis for the Committee's interest in this confrontation meeting.

The first problem – one common to all countries – concerned the financial resources needed to meet the educational requirements of a changing society. The percentage of national income to be devoted to the educational sector was a matter of prime importance everywhere, but it was particularly so in Ireland because of the country's level of economic development.

As in other countries, Ireland was obliged to choose its priorities when modernizing its educational system. The country had already resolutely turned towards planning and programming methods for education. This meant that the State's role here had to be re-defined; in Ireland, such a re-definition was particularly significant as education was very decentralised. Furthermore such planning for education, must fit into the more general framework of national economic planning which alone could give a picture of the whole community's requirements to guide the educational planning authorities. Lastly, planning involved the problem of participation by the country's economic and social forces.

All countries have had to solve the problem of the location of educational establishments; all have had to try to avoid excessive scatter with its consequent waste of energy and resources. Similarly, they have had to try to improve the training of teachers and the pupil/teacher ratio. At the same time, a rational means had to be found to meet modern society's new requirements in science and technology. Mathematics teaching was in this respect a crucial problem, not only in Ireland but in all countries. It was also necessary, in a world where international relations were becoming more and more intensive, to spread the knowledge of modern languages and improve the methods of language teaching: this was not only an Irish problem but one common to other countries as well. The same comment could in fact be made in relation to each of the topics revealed when analysing the Irish situation: the need to develop educational research; to improve teacher training; to provide in teaching establishments equipment better suited to the new requirements of science; to provide technical and language teaching; to facilitate access to higher study for all young people of ability; to promote technical teaching, especially at secondary level; to co-ordinate general with technical education; to develop higher education and research, etc.

The present confrontation would therefore certainly provide useful lessons for all the countries represented on this Committee. It was from this angle that the examining group had selected the topics proposed for the Committee's attention from its study of the Irish situation.

## B. INTRODUCTORY REMARKS BY THE IRISH DELEGATION

The head of the Irish Delegation, Dr. T. O'Raifeartaigh, in his introductory remarks drew attention first to one of Ireland's fundamental features: this country's economy had, so to speak, no frontiers. It was open in particular to Great Britain and the United States. Irish freedom of movement to these countries certainly had advantages for the individuals concerned and for Ireland in general, but it also entailed serious difficulties from the point of view of educational planning; for example, it was impossible for the very short term to establish an exact correspondence between the number of medical graduates which should be produced and the country's own requirements.

Mr. O'Raifeartaigh emphasized that in economic as in other matters the country's policies reflected the pride attached to the individual's well-being and rights as compared with the State's demands on its citizens.

Attention had been drawn rightly to the humanist orientation of the Irish educational system; it differed little in this respect from the majority of educational systems in the other European countries. However, Ireland recognized the need to develop technical and science teaching and substantial steps had already been taken in this direction.

One of the fundamental objectives of Irish educational policy was to establish as rapidly as possible real equality of educational opportunity for young people from all areas and all social classes. The fact that the structure of the educational system was very decentralised was a source of special difficulties in this regard and, as suggested by the Examiners, it was accordingly necessary to seek carefully the most appropriate ways of associating the local educational authorities and teachers with action and activities of the Department of Education.

In conclusion, Mr. O'Raifeartaigh mentioned the Irish language problem. While it was national policy to preserve and develop the Irish language, which embodies a fundamental part of Irish culture, it was also the intention to make ample room for the continental languages so that Ireland would be able to play its part in the European community. The steps already taken to this end were an important aspect of the educational planning upon which, with the help of OECD, the Irish authorities had now systematically entered.

# II

## THE EDUCATIONAL PLANNING MECHANISM

In compliance with the only formal recommendation in the Irish team's report, a Development Branch had been set up at the beginning of 1966 in the Department of Education. As this was the first CSTP meeting based on a national educational planning report, Mr. von Mutius proposed that the discussion should first review the programme directions and functioning of the planning mechanism Ireland had already begun to establish.

How could an educational planning or development Branch be set up and run? Mr. von Mutius noted that this question was of interest to all countries travelling the same road as Ireland. Useful lessons could certainly be drawn from the solutions suggested by the Irish team and adopted by the authorities for whom its Report was intended.

As recommended by the team, a new post of Assistant Secretary of the Department had been created in order to establish and direct the Development Branch. The team also recommended that the Branch consist of an experienced statistician, an economist, a school inspector, an operational research expert and a sociologist.

Mr. O'Conchobhair noted in the first place that the Development Branch of which he was head had an experienced statistician, Mr. Hyland, a member of the Irish Delegation and formerly attached to the United Nations in Geneva and New York. The Department was currently looking for a sociologist and an economist. A team of educational psychologists was also attached to the new Branch. The team's suggestion concerning a school inspector was being examined. He wondered whether, rather than assign a school inspector to the Development Branch, it might not be preferable to have available for consultation, in relation to each particular problem, experts from the inspectorial staff, thus making available to the Branch all the expertise of the inspectors. Mr. Embling pointed out in this respect that his own experience had convinced him of the need to have at least one inspector in a planning unit to establish constant communication between the planners and the various sectors of the teaching world.

As Director of the team of experts who would gradually form the Development Branch, Mr. O'Conchobhair was concerned about the problems of the planning and control of the work programme of such a group of highly qualified individuals. This Branch whould necessarily require people whose high qualifications in a variety of disciplines might also be expected to produce strong differences in points of view. He asked any Delegates present who had experience of such a situation to let him have their comments in this connection.

The Delegate of Denmark explained the procedure in his own country and in Sweden to maintain close touch between the experts' work and practical action. In Sweden, the Minister asks a group of experts to submit proposals on the particular problem he has to solve. The experts' report is then sent to the various bodies, institutions or persons interested in the problem. The Minister himself is then in a position to present a report to the Government or Parliament which takes account both of the views of the experts and the comments of the persons involved in the activity concerned. In Denmark, under such conditions a committee is established, with its membership usually comprised of both experts and those responsible for action; the resulting report sent to the Minister is usually in a form permitting immediate practical application. There is the danger with this procedure that new ideas might be diluted by the immediate considerations of the members of the committee who are engaged in the activity under consideration, but at the same time it can be taken for granted that the committee's recommendations will normally be accepted.

Mr. Embling pointed out that it is not possible or desirable to exert a simple control over the expert survey and research work for planning. The more qualified the expert group engaged in planning work, the more difficult and complex become the responsibilities of those who supervise them, but this circumstance should, in compensation, result in a more sophisticated and effective programme. The very divergencies which arose among such a team could encourage creativeness. Thus, there was every advantage in recruiting experts of high calibre, even though this may proceed more slowly. The Delegate for the United Kingdom noted the initial progress in this direction represented by the presence in the Irish Development Branch of a statistician of high repute (Mr. Hyland).

The second question Mr. von Mutius asked the Irish Delegation concerned the organisation and progress of investigations and research programmes needed for educational planning.

The examiners' report noted that various important problems were being studied by committees such as the committee on teacher training. Mr. O'Conchobhair observed that the most important committee had yet to be set up: a group to be established under general terms of reference to review completely the entire Irish educational system. This group would consist of experts in the field of education, including particularly members of the Development Branch staff, other Departmental staff, representatives of the teachers and persons from other sectors of society who might have a useful contribution to make. The group would be free to make recommendations to the Minister and to the Secretary of the Department. This step was important because up to now various areas of the educational system had been reviewed by separate teams of experts, whereas the terms of reference of this new committee would aim at more co-ordinated proposals covering the whole educational system.

With respect to the research programme, the Irish representative reported the following: A new research unit attached to one of the teacher training colleges in Dublin (St. Patrick's) was investigating the problems of primary teacher training and, more specifically, the problems of training teachers for kindergarten (children of four to six years of age); a research programme in the Department's Development Branch itself awaited the recruitment of an expert staff and, in particular, a sociologist.

As the examiners had noted, educational research in the University was still very limited. This situation was thought to be due largely to the inadequate financial resources available for that purpose. In response to this observation the Department of Education proposed to establish a special grant scheme under which students taking Master Degrees in Education would receive financial assistance if their research work related to problems of priority in the context of a general educational research plan. The implementation of this scheme and its scope would of course depend on government decisions to allocate the sums for this purpose.

It was noted at the meeting that such a scheme might be an excellent method of attracting some of the most gifted university students to the field of educational planning.

The discussion on educational research provided the opportunity for stressing once again the need for international exchange in this field so that each country may profit by the research carried out in other countries and suitably direct its own research. Mr. Hyland observed that in spite of all the emphasis placed on international exchange over the last years, no great progress seemed to have been made. He pointed out further that the transposition and comparison of research carried out in different countries created serious difficulties because in most cases research projects were designed to fit particular cultural contexts. In this connection he suggested that a body like the OECD could, with the help of Member countries, take the lead in preparing research projects designed to sort out the situations common to several countries or to several cultural groups, from situations largely determined by the peculiarities of an individual country or a cultural group. This would enable countries in which research is less advanced to make more effective use of the results of some of the research carried out elsewhere.

The third point raised by Mr. von Mutius in connection with the planning apparatus concerned the essentially technical machinery which Ireland intended to employ in order to continue the work begun by the team.

On behalf of the Irish Delegation, Mr. Hyland enumerated some of the main items in the programme now being prepared for this purpose. In the first place, it was planned to introduce gradually a modern system of educational data assembly and processing. With the use of computers, the Department of Education hoped to be in a position to draw up a permanent card index of individual students' records. In the second place, extensive surveys would be carried out in order to fill in the gaps existing in the information required for planning. It would be necessary to repeat some of the surveys described in the EIP team's report. But other types of survey were also planned; for example, on the attitudes of persons exercising any sort of responsibility in the educational sphere.

It was also intended to carry out surveys on the educational system's "external productivity", i.e. to assess the system in the light of a number of targets and the view taken of it by "consumers" (industry, commerce, the civil service, etc.) who received its "products". The technical research base for forecasting manpower supply and demand would of course be continued in conjunction with the Department of Labour. Special attention would be paid in this connection to the extremely complex problem of completing a model or matrix table linking manpower targets with educational targets. Mr. Hyland insisted that this was a fundamental problem which should be studied in consultation with other countries. Similarly, international co-operation could help to perfect strategies of innovation which take account of the whole series of complex economic, cultural and educational factors involved.

In extension of the team's report, it was also intended to analyse the educational system's internal productivity and complete the collection of a set of indices on which the targets for school maps will be based.

The examiners said in concluding their report: "Whatever action the Department may take, it will, however, not suffice to ensure the success of the reforms planned. All those responsible for education at all levels and, in short, the entire community must be involved in a dynamic process of change. Seen in this light, the key factors for strategy are participation and information." Mr. von Mutius' fourth question in connection with the planning apparatus was aimed in this direction: how was the community to be associated with the preparation and realisation of policies.

Mr. O'Conchobhair pointed out first that far from acting in a vacuum, the administration had been in continuous communication with teaching circles, and in particular with teachers' associations, especially over the last few years. Furthermore, the public would be extensively consulted in each of the country's 26 counties with regard to the re-organisation of post-primary education. The methods for carrying out this consultation were described in the open letter circulated to the school authorities in January, 1966 by the Minister of Education concerning co-ordination between general secondary schools and vocational schools.

The National Advisory Council on Education whose formation seemed to be imminent when the examiners visited Ireland had not yet been set up. This Council would include delegates of the main teachers' and school administrators' associations as well as representatives of the various sectors of economic and social life. It was very significant to observe that such an eminent body as the National Industrial Economic Council attached great importance to the creation of this Advisory Council. Indeed, an important aspect of the community's participation in educational planning has been the support received by the Department of Education from economic circles, especially through the National Industrial Economic Council, which published a critique of the EIP team report, supporting its major recommendations and, particularly, endorsing the formation of the Development Branch for education with a high-level professional staff*.

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* See Appendix III to the present publication for excerpts from: *Comments on Investment in Education*, National Industrial Economic Council, Report No. 16, Dublin, 1966.

# III

## MANPOWER TARGETS AND PLANNING

In the section of their report on the adjustment of the educational system to the requirements of the economy and society, the examiners mentioned that the Irish EIP team endeavoured to determine what targets should be reached by the educational system in order to satisfy the requirements arising from the Second Programme for Economic Expansion up to 1971. They briefly described the method used by the team for this purpose. The team had specified the targets which might reasonably be attained in the form of a matrix of the projected educational structure of the working population; then the results were compared with the number of school leavers that the educational system could be expected to provide. Mr. Tremblay pointed out that this sort of matrix held out an important promise for educational planning.

Calculations based on tables of this kind, should provide estimates of the educational system's probable production surplus or deficit with respect to economic requirements. However, such a table reflects the present state of the economy. According to the examiners' report the economic planning programme on which the table was based had already begun to be modified. Mr. Tremblay thought that the next questions was: could such a table reflect the transformations in the economy, could it continue to reflect the changes occuring in the economy, in terms of changing training and educational requirements? He thought that this touched on a very fundamental question which could be formulated in more general terms as follows: to what extent could enrolment targets – both as regards the levels of enrolments to be achieved and the types of enrolment to be increased – be based only on estimates of the economy's foreseable requirements?

A method such as that used by the Irish team certainly permits extremely interesting forecasts, for example, that there would be a serious deficit at junior certificate level. However, it was a moot point whether a similar diagnosis could not have been made without recourse to the team's table. In any event, the essential problem for Mr. Tremblay was whether an educational system should define enrolment targets on the basis of indices previously established in the light of economic requirements or on the basis of other less economy-oriented criteria such as, for example, criteria based on the human development potential represented by each generation. Such criteria would lead the society to "produce" levels of educational qualification beyond the requirements of the economy, but such an "over-production" would be in society's vital interest: its people might produce change in the economy rather than make a "poor" adjustment to it. This question was raised in connection with the study of the Irish situation, but in Mr. Tremblay's opinion it touched on the general methods of educational planning, and every country has to look for a solution of its own.

Unfortunately, the confrontation discussion has not led to a wider, systematic exploration of the problem raised by Mr. Tremblay. However, two points stood out quite clearly from the ensuing exchange of views. In the first place, both for the Irish Delegation and for others taking part in the meeting, enrolment targets determined in the light of manpower requirements were essentially minimum targets. Besides that, other more general social targets might justify a sharper rise in the levels of qualification to be attained. In the second place, emphasis was put on the utility of figures such as those revealed from this aspect of the study prepared by the Irish EIP team. Mr. Embling for his part regarded this type of approach as essential for formulating diagnoses which would be of demonstrative value in policy discussions both for the Government and to the educational authorities at the various levels.

The comments elicited by Mr. Tremblay's remarks thus mainly showed that models defining enrolment targets in the light of economic requirements are of strategic value in orienting action. It was remarked that, even when imperfect, such models have a real impact on the orientation of educational policy and that this is reason enough to aim at their further improvement. As a representative of the Secretariat, Mr. Hayward pointed out that Mr. Tremblay had raised not simply a question of planning technique but a fundamental policy issue in terms of the assumed objectives of planned educational development.

An important related problem area was also introduced briefly into this discussion. This concerned the respective roles to be played in the training of youngsters by the educational system and the working world itself. Mr. Tremblay considered that the definition of these roles underlay any consideration of translating the requirements of the working world into terms of school enrolment. At which level should school training cease and what was the firm's share (firm in the wider sense) in the final stage of training? Taking the profitability of school attendance from the individual's as well as from the society's point of view, how long should youngsters be kept in school and what categories of youngsters should be kept at school for any specific period? Mr. Tremblay wondered in particular whether it was a good principle that all schooling should include some vocational training or whether the educational function, for certain categories of youngsters, should be limited to the transmission of so-called general knowledge. The Irish delegation indicated that Irish educational policy was to provide, as far as possible, some measure of vocational training but without excessive specialisation. This is the practice in Ireland, especially in rural vocational schools.

# IV

## SOCIAL PARTICIPATION

From the Irish EIP team's report, which contained a detailed methodological analysis of social participation in education, and from their own observations, the examiners suggested in their report that the Irish authorities should give priority to the elimination of educational inequalities between regions and social classes. When asked what measures were planned in order to provide wider access to education, the Irish Delegation said that the Department of Education had in fact given this issue priority since, less than four months after the examiners' visit to Ireland, it was in a position to submit an overall plan based on the principle of equal education opportunity for all. As this plan had not yet been the subject of a final government decision at the time of the meeting, the Irish Delegation was not in a position to state its content definitively.

However, a clear line was being taken towards making free secondary education generally available. Since the secondary (academic) schools were private and fee-charging it was proposed to offer additional per capita grants to any school which would agree to accept pupils without fee.

The plan also included amendments to the system of aid to students in higher education. For the present, scholarships would be awarded in order of merit; applicants must comply with certain standards of academic achievement. The amount of a scholarship would vary according to the applicant's requirements and his family's financial position. These measures were regarded as only a first step towards a substantial reform of the system of aid to university students.

The Irish Department of Education was examining the various forms of financing university studies employed by other countries, and was particularly interested in foreign experience with loans to students, as, the Irish authorities had not yet taken a firm stand on this issue.

Together with the measures planned in Ireland to eliminate the financial or economic factors responsible for educational inequality, a whole series of measures intended to facilitate geographical access to education were also planned. As noted in the examiners' report, Ireland had drawn up a substantial programme of secondary school reform in 1966. This programme was described in the open letter sent to the school authorities in January

1966 by the Minister of Education*. The Minister invited the secondary and vocational school authorities to seek out ways of co-ordinating their activities in order to get the most out of existing resources, both human and material.

The Department of Education was preparing school maps for the post-primary educational authorities, and the general public, in each area which would describe the present situation and put forward suggestions for the reorganising of the structure of second-level education. This was obviously a delicate operation in view of the private nature of most of the institutions in question and, of course, the strength of local tradition in all areas.

As suggested by the examiners, it was appropriate in the context of this reorganisation to consider the optimum size of the post-primary school. Mr. O'Conchobhair said that fairly flexible criteria had to be adopted in Ireland in this respect. It was thought that an acceptable size of the post-primary school might vary between 400 and 800 pupils, depending on the degree of population density. Schools of less than 400 pupils would have to be retained in certain areas, such as the country's West coast, where the population was small and widely scattered, but wherever it seemed feasible each post-primary school in rural areas would have a recruitment potential of at least 400 pupils. It would of course be necessary to provide transport to the central establishment for a large number of these pupils. A scheme had been drafted for this purpose, but at the time of the meeting the Government had not yet announced its decision on it.

The establishment of the comprehensive schools mentioned in the examiners' report would no doubt contribute very significantly towards solving the problem of enrolment inequalities in the catchment areas of these schools. The first three comprehensive schools has opened their doors in September, 1966 to junior-level general secondary school pupils and to pupils enrolled for the same level of vocational study.

The problem of inequalities of school enrolment seemed not only to arise at secondary and higher educational level but also, at least from a certain angle, at primary level. Referring to the observation by the Irish EIP team that a large number of youngsters left school without obtaining their primary school leaving certificate, the Delegate for Germany asked the Irish Delegation what factors explained this phenomenon.

Mr. O'Conchobhair replied that the period of compulsory school attendance ended at 14 years of age. A good many children, particularly in remote areas where schools were very small, remained in the primary school until they reached the age of 14 when they left the educational scene altogether; these pupils had not bothered to take the Primary Certificate examination. In this respect, the problem was linked with the question of the reform of the educational structure. But, in Mr. Conchobhair's opinion, this problem should be put in a wider context. Consideration should be given first to the actual meaning of the primary school leaving certificate. The certificate testified that the pupil had completed 6th Standard and had reached pass standards in tests in Irish, English and Arithmetic.

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* See Appendix IV.

Personally, from the educational point of view, he did not attach any great importance to examinations imposed on pupils at this level. However, the educational authorities and primary school teachers in Ireland were divided in their opinions on this point; the teachers' organisation was vehemently opposed to the examination.

If automatic promotion from primary school to post-primary school were introduced at 12 years of age and at the same time compulsory school attendance ended at 15 instead of 14, all youngsters would take a three-year general or vocational course at junior secondary level. The need for a primary leaving examination would in those circumstances no longer arise. Unfortunately, for purely material reasons, they could not count on extending the period of compulsory school attendance by one year before 1970.

# V

# PRIMARY EDUCATION

As an introduction to the discussion of developments in primary education in Ireland, Mr. von Mutius stated that the examiners were impressed by the fact that, contrary to many other documents of the same type, the Irish team's report by no means neglected primary education. There is often little interest shown in the planning of primary education because of the misconception that there are fewer problems involved. For example, it has been suggested that, since primary schooling is compulsory, research could be confined to the preparation of population forecasts, from which requirements in teachers, premises and expenditure would readily be deduced. Mr. von Mutius took the position that, on the contrary, it was essential to pay special attention to primary education, which forms the real foundation of the whole educational edifice.

In the light of this position changes in emphasis and the direction taken by educational planning over the last few years may be observed and analysed. Taking scientific and technical personnel requirements as a point of departure, the OECD had first considered higher education. Observing that the number of university graduates and technicians would be largely insufficient if social participation in secondary education was not broadened, consideration was then given to developments at that level and at primary school level. It was realised that, even though it was general, primary education reflected in its very orientation the social differentiation which was subsequently confirmed at secondary school level. The distinguishing trend in primary education at present was the determination in the various national educational systems to provide all pupils with equal opportunity beginning with the initial stages of school attendance.

The Irish EIP team's report provided an excellent illustration of this change in outlook. It contained a detailed analysis of the efficiency of primary schools, or "national schools" as they are called in Ireland. Pupils who attend the still very numerous small schools seem to be at a disadvantage from the point of view of the quality of the teaching they receive. The team's work clearly showed that an improvement in the efficiency of primary school teaching would without question flow from measures adopted to face the three following problems: the centralisation of schools, the reform of weekly class hours, and improved teacher training, especially in mathematics. Mr. von Mutius invited the Irish Delegation to describe the measures planned to meet these three problems.

As regards the inefficiency of small schools, Mr. O'Conchobhair did not deny that this observation was generally confirmed by the facts, but he thought it excessive to claim that all small schools offered lower quality education. In any case, the geographical reality of Ireland would make it necessary to retain small schools in certain areas, as for example, on the West coast; the means should be found of providing the same efficiency of teaching there as in other areas where the primary school network could be reorganised through centralisation.

The Irish delegate said that they had begun to close small schools even before publication of the team's report. As the centralisation of schools had now been recommended by a body independent of the Department of Education, this policy would no doubt be much better received. It had so far come up against fairly sharp resistance from local communities. A centralisation plan could not be imposed: the Department hoped to reach its objectives progressively through information and dialogue at local level. Admittedly, the practical target adopted was not yet ideal since at best its major result would be an increased number of four-teacher schools.

When speaking of weekly primary school hours, the examiners had said that they were quite inadequate. Their report had in fact minimized the problem by saying that these were 22 and a half hours per week. Mr. O'Conchobhair noted that this was the case for the more senior pupils, but for the very young (up to the second form) the school week was reduced to 18 hours. These were the minimum hours fixed by the regulations and, as happened with all minima of this kind, practice had transformed them into maximum hours. The Department of Education had been endeavouring for some time to increase the number of class-hours per week, but it first had to resolve difficulties that this change would raise such as increased teacher work-load.

As regards the quality of teacher training, especially for mathematics teaching. Mr. O'Conchobhair thought it advisable to qualify the assessment made by the examiners. The latter had rightly noted that only a small proportion of teacher training college students took the final examination in mathematics. However, it should be remembered that a student applying for teacher training college must have passed in mathematics at the examination for entrance to the training college i.e. the Leaving Certificate Examination. The Department had just received the report of a committee set up to review the teacher training college curriculum. This committee had recommended — and the recommendation had been accepted — that only three subjects be compulsory on all students at the final training college examination. These were Education, Irish and English. Outside these three the student had freedom of choice.

Moreover, it should be noted that the process of selection of applicants for teacher training college was fairly severe. The examiners had observed this fact in the case of St. Patrick's College. In view of the high cost of university study and the relative scarcity of jobs offered in industry and commerce to secondary school leavers, applicants for the teacher training colleges were numerous and it was therefore possible to insist on a high academic standard.

Returning to the examiners' remarks concerning the short-comings of mathematics teaching in the primary school, the Irish delegate agreed that the deficiency was ascribable in large measure to the small size of schools, but said that there was another factor – dissatisfaction with the actual content of syllabuses. The latter had therefore been reviewed: a single mathematics syllabus had been designed to replace the arithmetic, algebra and geometry syllabuses and would now be compulsory in all primary schools.

Following this statement, Professor Janne reverted to the importance that should be attached to the study of mathematics by future primary school teachers. Defining the examiners' point of view in this respect, he said that they did not claim that mathematics was necessarily of greater educational value than other subjects, but they thought it essential to provide a very good grounding in mathematics from the primary school. The future orientation of youngsters to scientific and technical studies at secondary school and the University would depend largely on the quality of such tuition. Mathematics teaching should be one of the educational authorities' major concerns in the context of the economic development of a modern country, as had been recognized, for example, in the USSR and the United States. In Ireland the absence of stress on mathematics in the primary school curriculum was particularly marked and the examiners had therefore insisted on the special attention which should be paid to training for mathematics teaching in the primary school. The difference of opinion between the examiners and the Irish Delegation certainly did not concern the targets, commented Mr. O'Conchobhair, but whether the further study of mathematics should or should not be compulsory in the teacher training college. However, in reply to a question from Mr. Embling, he specified that mathematics teaching theory formed part of the training syllabus for all future teachers.

Referring to the preceding discussion, which tended to highlight the importance of primary schooling in an educational development plan, the Delegate for the Netherlands mentioned that research carried out in his own country demonstrated that educational inequalities at secondary and higher levels could already be discerned in the primary school. The research reported by Mr. Veldkamp revealed that the disparities observed in the rate of secondary school attendance were not due to any significant difference between the attitude of parents in one social class or another. They were rather due to the varying ability of youngsters from different social classes to gain access to and succeed at secondary school. This was essentially a result of the handicap suffered by the lower class child as early as the primary school. The cultural climate in which he had so far lived put him in an inferior position as compared with other youngsters who began their primary schooling with him. According to Mr. Veldkamp, it was the inflexibility of primary school syllabuses which should be blamed here. The educational planning authorities should consequently pay much more attention that they had in the past to primary education and in particular to teaching methods at that level. If the primary school was the basis of education, it should also be an effective basis for youngsters from all social classes.

The Delegate for Italy suggested with reference to these remarks that the OECD Secretariat, perhaps in consultation with the Council of Europe, might go thoroughly into this question of social participation in general and, more especially, into the problem as it arose at primary school level.

The Committe decided to broaden the question and put it in the following terms: was the OECD countries' remarkable educational expansion really accompanied by a move towards democratisation as understood by less unequal enrolment of all social classes at the different educational levels? The Secretariat would draw up an information note for the Committee on this point.

# VI

## POST-PRIMARY EDUCATION

What was known in Ireland as post-primary education covered the whole of second-level education. It therefore included general or classical education as well as technical and vocational training. Mr. Janne's first question concerned the extent of progress in technical education and its co-ordination with classical education. He asked the Irish Delegation to say what plans had been made concerning such co-ordination of these two forms of secondary schooling.

As noted in the examiners' report, the Minister of Education had announced in January, 1966 a whole series of measures intended to improve co-ordination between the junior and senior secondary levels. At the junior level a new three-year curriculum had been prepared for this purpose to enable pupils from the vocational schools as well as those from the general secondary schools to take the same examination for the "Intermediate Certificate" as from 1969. This new curriculum had been in force since September, 1966.

It appeared from the Irish Delegation's comments that less progress had been made in implementing plans concerning the senior level; this was also mentioned in the examiners' report. The plans had been published in 1963 and concerned, first, the introduction of a technical school-leaving certificate which would be equivalent to the secondary school-leaving certificate. In the second place, organic links would be established at senior secondary level between the secondary schools and the technical schools, as well as between the technical schools and the University – especially with a view to enabling future technical certificate holders to accede to at least some of the University Faculties such as science, engineering, architecture, etc.

Mr. Janne then asked the Irish Delegation about the interesting project to develop regional technical colleges, a step which would directly meet the new needs of the country's industrialisation. The examiners had had the opportunity to visit a new technical college in Dublin but the full development of this project for the country as a whole was still in an early stage. However, Mr. O'Conchobhair said that recent Departmental directives had speeded up the background research on the establishment of these technical colleges. An Advisory Committee had been set up up which included representatives of industry, the trade unions, management, the

Department of Agriculture and the Department of Labour. The Secretary of the Committee was an inspector of technical education in the Department of Education. The aim was to establish technical colleges by the academic year beginning in September, 1969. These institutions had in fact to be provided for youngsters who had obtained the new Intermediate Certificate and wished to continue their technical studies at senior level.

Mr. O'Flanagan emphasized the fact that the technical colleges would be regional. This point was extremely important. The colleges would be so distributed as to serve all parts of the country and this would help to prolong the studies of a great many young people living in areas which at present had no senior schools. Both at regional and national levels, the role of these colleges would reflect a close liaison between the administrators of these establishments and the world of Industry. Mr. O'Flanagan said that care would have to be taken to train technicians who could be absorbed by industry or the economy in general. The composition of the technical college advisory committee reflected this concern.

The third point raised by Mr. Janne referred to the structure of the secondary school syllabus. The Examiners had noted that this syllabus put great emphasis on classical subjects: the pupils devoted about 10% of their time to the physical sciences and biology and 50% to the classics. The Irish Delegation pointed out that this state of affairs could not be righted without a substantial injection of additional financial resources into secondary education. For instance, the development of science teaching necessitated expenditure on the installation and fitting out of laboratories which most secondary schools were at present quite unable to consider, even with the assistance they received from the State for this purpose.

The fourth subject mentioned by Mr. Janne in connection with post-primary education was the improvement of teacher training and qualification. He noted that this was a complex problem because secondary school teachers were trained by the University. The Examiners had particularly emphasized three problems: future teachers' difficulty in finding teaching practice; the absence of a probationary period for new secondary school teachers; and the small proportion of "specialist" teachers, i.e. teachers with a university degree in the subjects they had to teach.

Mr. O'Conchobhair explained that precisely because secondary school teacher training depended on the Universities, the Department of Education authorities had to wait for the report by the Commission of Inquiry on Higher Education in Ireland before tackling the problems mentioned by the Examiners. Furthermore, the Department was at present reviewing its policies as regards teacher training in the sectors for which it was immediately responsible: the teaching of art, domestic science, metalwork and woodwork.

# VII

## HIGHER EDUCATION

Neither in the Irish EIP team's report nor in the examiners' report did higher education occupy the place it should normally have in such documents. In both cases, the survey confined itself, even though this is an important topic for the Committee, to noting the existence of a Commission on Higher Education whose work was still in progress at the time of the confrontation meeting. In view of these circumstances and in particular the delicate position in which this placed the Irish Delegation, the examiners invited the latter to make what comments it thought fit on the three following questions: *a*) What measures were planned in order to increase the proportion of students in the Science Faculties? *b*) What were the prospects of developing post-graduate study and research? *c*) What means were considered with a view to establishing organic relations between the State and the Universities?

How to increase the proportion of science students at the University? The answer to this question, according to the spokesman of the Irish Delegation, Dr. O'Raifeartaigh, was that the first thing to do was obviously to try to increase the number of pupils choosing science at secondary school and as a preliminary to raise school attendance at that level. Actually, the number of secondary school pupils had risen appreciably. Furthermore, the Department of Education accorded special grants for the installation and fitting out of laboratories. The examiners' report also noted that schools were given a certain sum, additional to their annual grants, for each recognized science teacher they employed. A difficulty here was that the teachers' association looked askance at this step as involving higher salaries to science teachers than to those of other disciplines. Science teaching, however, suffered from competition with industry – not only from Irish but also from British industry. Despite these difficulties, which are still very real, progress has nevertheless been continuous over the last few years.

In view of the importance of this problem, the idea was advanced that the Irish educational planning authorities might consult with the universities in order to prepare indices of enrolment trends in science.

Dr. O'Raifeartaigh replied that such information was available to the Department, but that even then it was not easy to forecast very accurately how many Science graduates would, on leaving university, take up teaching.

He went on to observe that the position in Ireland as regards the development of post-graduate study and research at the university was not as satisfactory as might be desired. As in other fields, limited financial resources would seem to be mainly responsible. This aspect of things was improving and, as well as that, a great deal was to be expected from the recommendations of the Commission on Higher Education. The effect of these recommendations on public opinion might bring the community to see its way more clearly to giving the development of the universities, and especially to the development therein of research, a priority which was necessary for the country's economic growth.

Mr. O'Raifeartaigh said that the problem of relations between the State and the Universities had many different aspects; it also would no doubt be widely discussed in the Commission's report. As elsewhere, the difficulty in Ireland is to reconcile the requirements of rational co-ordination under State aegis with University autonomy. This problem has become particularly acute in countries which are seriously planning educational development. Obviously, national planning must embrace all levels, including higher education, where indeed the fate of modern society was essentially at stake. Observation had shown that there was no general formula which could be transposed to each and every country regarding the forms of liaison to be established between the State and the Universities. Each country would have to use or, if necessary, invent the machinery for this purpose which best suits it own circumstances and traditions.

*NOTE*: The Commission on Higher Education in Ireland presented the Minister for Education with a summary of its report in April 1967 (Commission on Higher Education 1960–67, I — *Presentation and Summary of Report*. Dublin, Stationery Office, 1967). On 18th April 1967, the Minister for Education publicly announced the Government's intention of bringing together in one University of Dublin the two existing Dublin Colleges, that is, University College and Trinity College. The Secretary of the Department of Education, Dr. O'Raifeartaigh, has been freed from his normal duties in order to enable him to act as Chairman of the negotiation of the practical arrangements for the establishment of the new university and thereafter of the arrangements which will be called for in relation to the country's other institutions of higher education.

The Minister's policy statement on the joining of the two Dublin Colleges into one university, indicating the significance of this move for the future development of university education in Ireland, can be found in Appendix IV to this report.

# VIII

## ADULT EDUCATION

The theme of adult education was only briefly mentioned in the Irish EIP team's report. They said that there was at present no general adult education programme in Ireland and no manpower retraining programme in particular. When commenting on the team's report, the National Industrial Economic Council referred to the urgent necessity for further adult education and especially for measures to facilitate manpower retraining in order to meet the growing need for technicians in the various branches of industry.

The Irish Delegation pointed out that adult vocational training was a responsibility of the recently created Department of Labour and that a Bill on adult vocational training was being drafted.

On its side, the Department of Education ran a number of courses for adults. About 100,000 people attended these courses in various parts of the country.

Circumstances prevented the Committee from discussing the problem of adult education in greater detail. It would seem desirable that when discussing educational planning in future, the CSTP paid special attention to this problem and, in particular, to the contribution of the educational system to manpower retraining in order to meet the continually changing requirements of modern technology.

# IX

## GENERAL CONCLUSION

This review of Irish educational policy before the OECD Committee for Scientific and Technical Personnel was the first such review conducted within the context of an active country planning programme for education. Its basic documentation was the first comprehensive survey of Irish education* and the discussion before the Committee involved a new entity in Irish educational management — The Development Branch for educational planning established in the Department of Education. The Committee could, therefore, draw a number of significant initial conclusions useful to countries engaged at various stages in establishing a process of planning for the development of their educational systems.

The Irish example illustrated the complexity of the undertaking to plan for education and furthermore probed its implications for the most fundamental aspects of a society's life. Educational planning was shown to involve first the identification of options for decision-making. Whether the options concerned the choice of targets, the rate at which they were to be achieved or the means to be employed, questions of values were almost immediately raised which are ultimately the backbone of a culture and the basic framework for the orientation of community action.

More specifically this study of Ireland demonstrated that educational planning cannot be restricted to the quantitative aspects of developing and financing educational systems. When educational plans project substantial educational change, such plans necessarily involve a number of aspects of strategy beyond the financial and investment aspects, for example, the programme to stimulate the necessary transformation in the attitudes and behaviour of teachers who are the front-line operators of any substantive educational change.

Furthermore, the Irish experience demonstrated that broad participation — of teachers, school administrators and parents — in the educational planning process is an indispensable condition for the success of the enterprise. The Irish educational authorities, beginning with the Ministry, had encouraged widespread public comment on the comprehensive EIP team report, and the Development Branch in the Ministry has used this momentum to involve the interested public and educational sectors in its continuing programme. The Irish experience reminds us that national educational systems have largely concentrated on the transmission of values and knowledge and have been generally conservative. The structure of the educational system reflects the social structure of the community and as such, projects an image which we almost spontaneously try to protect even when the circumstances of the community have undergone important changes to which education must respond. In this context, planning in education, more than in any other field, should include the means of full information, inter-communication and participation between the public and the policy planners.

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* *Investment in Education*, OECD.

Once, however, the fundamental social and human dimensions are recognized in educational planning, such planning must return to the problem of finance. This fact the Irish experience also illustrates. The problem of financing is perhaps the most acute of those facing educational planners in many Member countries. Generally speaking, it is no longer necessary to show governments that education merits a high priority, but the limitation of total financial resources requires that the public be convinced that the high targets proposed for education are justified. This aim can only be attained if those responsible for educational planning and policy development are able to demonstrate the vital involvement of education with the general programmes of social reconstruction and of economic and social development which are accepted as crucial to the national welfare.

This social demand for education coupled with resource limitations suggests the need for an extraordinary effort in planning and development-oriented research for education. In this regard, the Irish authorities indicated their intention to pursue two lines of investigative work which merit the attention of other Member countries: *1*) research and investigation aimed at an evaluation of the functioning of the educational system in terms of its institutions and structures and *2*) research directed toward innovations to increase the efficiency of specific educational processes which are operational in the classroom. Research efforts in these directions in support of educational development could be a further major preoccupation of the OECD programme with which the Irish studies are associated.

# APPENDICES

## Appendix I

# SUMMARY* OF THE IRISH EIP TEAM REPORT "INVESTMENT IN EDUCATION"

by Bernhard von Mutius

The following effort to summarize, with very brief additional comments, the Irish EIP Team's Report on educational planning and policy in Ireland, ***Investment in Education***, is based on the Working Draft of that Report and, furthermore, is influenced by the discussions on this draft of an expert meeting of the EIP Group which met in Dublin in April, 1965. The Report is in the final stages of editing by the Irish Team for submission to the Irish Government.

The Irish Report, in its printed form, will comprise, without appendices, around 400 pages. This summary is organised along the lines of the presentation in the Report itself. Following the EIP Meeting in Dublin, the Irish team has re-grouped the chapters appearing in the Working Draft in a manner to more clearly reveal the general thrust of its ideas. Thus, the Report may be considered under the following four general headings: Part I: it projects current trends under accepted Government programmes for the Irish educational system (Chapters I-V); Part II: it examines the performance of this system in relation to basic social and economic objectives (Chapters VI-VIII); Part III: it summarizes evidence on the efficiency of the educational system (Chapters IX-XI); and Part IV: it reviews possible implications for Irish education arising from this study in terms of its future development and its organisational needs for planning (Chapters XII and XIII). There are further chapters on Irish aid to educational development in emergent countries (Chapter XIV) and a discussion of the general theory of educational and economic progress underlying the whole Report (Chapter XV). Although the final summary chapter (Chapter XVI) and most of the appendices were not yet available at the time of writing this summary, the Working Draft was nevertheless virtually complete. For the sake of a clear appreciation of the material appearing under these major headings, the chapter outline of the Report is repeated:

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* This summary was originally prepared for discussion in the EIP Programme in early 1965 and was later presented as an Annex to the Examiners' Report.

Part I

*The present educational system projected*

I. The Irish Educational System.
II. Forecasts of Population.
III. Forecasts of Pupil Enrolments.
IV. Projected Requirements and Supply of Teachers and Schools.
V. Cost Projections.

Part II

*The performance of the educational system as related to social and economic objectives*

VI. Educational Sector: Flow Pattern, Output, Participation.
VII. Manpower.
VIII. Manpower; Comparison of Requirements and supply by Educational Levels.

Part III

*The efficiency of the educational system*

IX. The Use of Resources in National Schools.
X. Post Primary Education.
XI. The Financing of Education.

Part IV

*Implications for the development and organisation of the educational system*

XII. Educational Organisation and Development.
XIII. Recommendations for Reorganisation in the Department of Education.

Special Chapters

XIV. Aiding Educational Development in the Emergent Countries.
XV. Education and Economic Progress.
XVI. Some Issues and Problems Emerging from the Survey.

It should be noted at the outset that this document arises out of two years of intensive work by a small staff brought together under the direction of Mr. Patrick Lynch of the National University of Ireland, during which period much of the primary technical data for this study had to be brought together by the staff itself. This had required that the Irish team lay down a careful plan for acquiring just that information, within the scope of its resources, which could illuminate the key questions for Irish educational development in the immediate future. This was the purpose of the first document emerging from the Irish team's work which was reviewed by the EIP Programme participants in 1963. The character of this effort alone would make the present Irish Report surpassingly important. However, all who had the opportunity of reading the Working Draft have agreed that its highest significance lies in the fact that it takes the first and fundamental step in what must be a continuing effort in Ireland:

to create within the Irish educational system a consistent and practical upward development parallel to the dynamic development programmes being adopted for the remainder of the Irish social-economy.

The following summary cannot pretend to be complete* nor is it meant to propose an emphasis contrary to that of the main body of the Report itself. Rather, this summary is offered, in the expectation of further discussion in the EIP Programme which will attempt to focus constructively on Irish educational development problems and, at the same time, draw out the international significance of the Irish approach to these problems.

### I. *The present educational system projected*

This section of the Report projects the future development of the Irish educational system on the basis of existing trends and current standards of operation of that system altered somewhat by announced Government commitment to change these standards. This first involves an effort to estimate expected enrolment to 1975 at the various school levels in response to these standards of education. However, as basic reference points for these projections, and for the remainder of the Report, it is necessary to outline the major divisions of the educational system and the underlying demographic development for Ireland.

#### The Irish Educational System (Chapter I)

*The first level* of schooling, serving the 6 to 14 year old age group, is provided mostly by the "national" schools which are fully state-aided and free of direct charges to the pupils. They are organised on a denominational basis and are almost entirely under the management of the local clergy. The Department of Education pays salaries directly to the teachers, contributes at least two-thirds of total cost of new school premises. Fee-charging (non-aided) schools served less than 4% of the total enrolment of 495,000 in first level education in 1963. Only 0.5% of the total were in special schools for the handicapped.

*The second level* or *post-primary level* of Irish education is divided into two main types of school: "vocational" and "secondary" schools.**

*The secondary schools* are all private institutions owned and maintained mostly by religious organisations. These schools enrolled 84,000 of the total 123,500 pupils at this level in 1963. Their educational traditions are avowedly classical. In addition to an annual capitation grant, the state also indirectly pays the major portion of teacher salaries in these schools, and in 1964 a scheme for grants towards new building costs was instituted. Although they have maintained their private character, these schools are subject to state inspection and prepare their pupils for state conducted examinations which result in substantial uniformity in curricula. State examinations are the Intermediate Certificate taken at about age 15 and the Leaving Certificate at about age 17, the latter qualifying the students to present themselves for university entrance. The only major development beyond this form of private secondary school is the "secondary tops" divisions attached to "national" schools which offer two added secondary level years to these primary schools. These courses, enrolling 6,700 pupils (mostly girls) in 1962–63 required minimal or no fees and are under the same system of inspection as the "national" schools.

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* For example, this summary does not deal with the chapter on Irish aid programmes for education in emergent countries.

** This is the terminology used in the Irish schools system and followed in the Report.

*The vocational schools* are publicly organised under a system of local committees dating to legislation established in 1930 and earlier traditions. State grants and local rates supply 90% of the income for these schools, so fees to students are moderate. Local participation has facilitated great variation in the content of courses depending upon local conditions. The current length of the usual "continuation" course is two years beyond primary school completion.

*The third level* of Irish education is primarily university education, comprising 12,000 out of 16,000 students in 1963. The National University predominates with 9,500 students of the total. The same year the University of Dublin (Trinity College) had an enrolment of 2,500. The remainder of higher education is comprised of 1,500 students in teacher training and 2,600 students in various specialized institutions such as medical, art and design, engineering and architecture, and commercial schools and theological seminaries. State grants are made to the university on the basis of submissions from their authorities as to their financial needs for the year and is not tied to any formula with respect to teachers, pupils or courses. Up to this time only holders of Leaving Certificates from the secondary schools have been eligible for university matriculation.

In an effort to project enrolment in the various levels of the Irish educational system, the Report takes into account the following announced changes to be made in this system: *i*) raising the school-leaving age to 15 before the end of the decade; *ii*) extension of the two-year (vocational) continuation course to three years, making it more comparable to the secondary school course; *iii*) introduction of a two-year technical leaving certificate course; and *iv*) introduction of a "comprehensive" form of second level school in order to provide both vocational and grammar school courses for scattered communities.

These changes, while significant, do not directly presage a far reaching alteration in the basic structure or content of the Irish educational system and, therefore, with appropriate modifications, they allow for relatively straightforward projections of that system for the period considered.

## Forecasts of Population (Chapter II)

The forecasts of population had to be undertaken by the team itself. The Report suggests that this should, in future, be the task of a specialized institution and that a census in 1966 should be undertaken to allow for a revision of the forecasts. From various hypotheses on *net emigration* the most probable one was chosen – annual average of 20,000 for 1961–66, 10,000 for 1966–71 and for 1971–76. (The annual average during the 1951–61 period was 40,000.) The composition of emigration totals as regards age groups and sex was assumed to be the same as during the 1951–61 period.

Survival ratios by individual year of age, arrived at by reference to the 1951, 1956 and the 1961 censuses and to the 1962 birth rate per 1,000 women in 5-year age groups, were used to forecast the population. The Report predicts an increase in population, particularly marked in the 20 to 30 year age group. It admits, however, that population structure may alter considerably and that the precise nature of these changes is not clear.

Finally, an analysis of the 1951 and 1961 census figures served as a basis for projecting the geographical distribution of the future population between towns (more than 1,500 inhabitants) and rural areas, respectively and among the provinces. These projections indicate a 13.6% increase in town areas and a 3.7% decrease in rural areas between 1961 and 1971.

Obviously the population forecasts are dependent on the reliability of the assumptions on emigration. For purposes of educational planning the estimates on geographical distribution are also of vital importance. Both of these factors are chiefly determined by national policy, which demonstrates the interdependence of educational and over-all national planning. The Report, therefore, at several instances refers to the "Second Programme for Economic Expansion".

Given the pattern of hypotheses and assumptions underlying these demographic forecasts, the need for regular investigation and observation of key indices by a specialized institution for this purpose is made obvious in the Report.

Forecasts of Pupil Enrolments (Chapter III)

*First Level*: Since the level represents the age level for compulsory school attendance, 99.5% of the age group, 6 to 12 years inclusive, was assumed in school by 1970–71. Of this total only small groups would not be in national schools. The special schools for the handicapped was estimated at 5,000, still only 1%, by that date. A 5% increase in the non-aided private schools was assumed to continue so that their enrolment would be about 5% of the total (28,500). Children more than 4 and less than 6 years of age in national schools and those 13 and/or older not in second level schools (a total of 106,000) are added to form an estimate of 481,000 in the national schools in 1970–71.

*Second Level*: A continuance of the present entry trend to secondary schools (mostly children 12 to 14 years old) is assumed. Since grants towards the costs of new school buildings will be given, it is assumed that lack of facilities is not likely to present a barrier to a continuation of recent trends toward enrolment increase. No details of the social and regional groupings from which secondary school pupils were historically drawn, were available. Given these assumptions, entrants to secondary schools are expected to rise from 24,000 in 1963–64 to 28,000 in 1970–71 and to 31,000 in 1975–76. Entrants to the "secondary tops" and the new form of comprehensive school were put at 2,600 and 1,700 respectively for 1970-71 and at 20,000 for the vocational school continuation cycle.

*a*) *Junior cycle* of secondary schools: Since no historical figures on length of course* and attrition were available, the report assumes a continuance of the gradual increase of junior cycle pupils from 65,000 in 1963–64 to 82,000 in 1970–71 and to 92,000 in 1975–76.

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* The junior cycle is nominally a four year course, but in practice many pupils complete it in three.

*b*) *Vocational schools:* The impending changes in this sphere make forecasts difficult. An increase in enrolment of 60 % by 1970–71 is assumed. The estimates of pupils entering these institutions of post-primary education have been checked by a sample survey of entrants for six social groups in 1963 and corrected according to the aggregate participation rate which can reasonably be expected (72 % of national school leavers staying in full-time education in 1963, 83 % in 1970). The 1970–71 enrolment estimate is 37,000 for the two-year continuation cycle.

*c*) *Senior cycle* of secondary schools: The proportion of pupils leaving the junior cycle who enrol for senior courses rose from 49 % in 1953–54 to 57 % in 1962–63 and is assumed to reach 68 % in 1970–71. Since the stock of junior cycle pupils has been estimated, the number of senior cycle pupils could be deduced as 41,000.

*Third Level*: The projection of totals of students enrolled in the university and other third level establishments for 1970–71 is based on trend analysis of the relation between holders of secondary school-leaving certificate and university entrants. The projection of student stock by faculty is the result of trend analysis, taking into consideration that numbers in some faculties like medicine and dentistry will remain constant. It is assumed that the ratio between post-graduate students and under-graduates will remain unchanged. The total third level population is estimated to grow from 16,000 in 1963 to 26,000 in 1970–71.

The projection of flows and enrolments are mainly achieved by trend analysis. In such analysis the different factors influencing and limiting the trend of educational development should be distinguished; to these factors belong ability, educational motivation, social and regional participation, availability of facilities, etc. Trends which have been assessed should be checked against counteracting trends. The Report as a rule complies with both principles of trend analysis. Given the lack of vital statistical data the Report uses auxiliary methods (like the stock-entrants-ratio) to achieve reliable forecasts.

### Projected Requirements and Supply of Teachers and Schools
### (Chapter IV)

Replacement and expansion demand is projected by levels of the educational system as it actually is. The Report stresses the fact that early warning as to the expansion demand is necessary.

*a*) *Teachers*: The Council of Education has recommended a pupil/teacher ratio in *first level* schools of not more than 25 in a one-teacher school, 30 in a two-teacher school, 35 in a three-teacher school, and 40 in the larger schools. This would imply an average pupil/teacher ratio of slightly less than 30 and, correspondingly, a total number of teachers, required in 1970–71, of 16,000 for national and special schools plus 1,000 for non-aided primary schools. The average annual outflow from the teaching force at first level is found to be 3 %, the average annual inflow slightly less than 4 %. From these data the total of teachers in national and special schools broken down into the categories of trained and untrained teachers in 1971 and 1976 is projected.

The Report stresses the fact that due to the uneven age distribution a period of heavy retirements is commencing which will continue up to the 1980's.

If my summary is correct, there will be a numerical teacher shortage — represented by 1,800 untrained teachers — of about 10% in first level schools in 1971 (not taking into consideration part-time teachers). Compared with other countries of Western Europe, Ireland seems to be in a very happy position as regards meeting teacher requirements.

In a similar way outflow from and inflow into the teaching force of *secondary schools* is assessed. This leads to an estimate of 7,400 full-time equivalent teachers in 1970–71 or to a probable surplus of 1,100 teachers since the projected requirement is 6,300 based on an average pupil/teacher ratio of 18.1 for 1970–71 (17.2 in 1964).

The difficult problem of projecting teacher requirements for *vocational schools* is solved by examining the annual total of teaching hours in seven types of courses in 1962–63 and by translating these hours into "notional" full-time equivalent teachers (ratio 13.3 in 1962–63). Then in consultation with the Department total teaching hours in 1970–71 were projected. Assuming no change in annual teaching hours per teacher, this total was again converted into full-time equivalent teachers (ratio 13.9). The part-time total was allocated in the same proportions as in 1962–63. Detailed analyses of inflows and outflows in recent years were made. The result is that the required 2,600 full-time and 2,100 part-time teachers in nine subject categories will be met by 2,400 full-time and 2,300 part-time teachers in 1970–71. The distribution of teachers according to subject categories shows where surpluses and where deficits might be expected.

*b*) ***Buildings***: By sending questionnaires to the schools other than national schools, the Irish team assembled data on size of schools, age of school buildings, number of class rooms, pupil places and pupils enrolled. Thereby the present capacity utilisation could be assessed (average 85% in non-aided primary, 75.5% in secondary, and 89.8% in vocational schools). By estimating the probable distribution of projected pupil enrolments in 1970–71 on categories of school size the capacity utilisation to be expected in this year could be detected. A utilisation rate of more than 90% would give proof of a corresponding demand for new pupil places. The replacement demand was derived from the rule that accommodations over 80 years old should be replaced. The result is that the present building plans for national and vocational/technical schools seem to be sufficient to meet the requirements of 1970. As for secondary schools the present building rate, if continued, would meet expansion demand but not full replacement needs.

### Cost Projections (Chapter V)

Teacher salaries and pension rates are expected to rise annually by 3.5% (annual growth in GNP 4.1%, productivity growth rate 3.5%, according to Second Programme for Economic Expansion). Maintenance and transport services per unit cost will increase annually by 1.2% (wage rates 3.5%, productivity in the service sector 2.3%). School building costs are assumed to remain unchanged, due to technical improvement like prefabricated buildings etc. over the period 1961 to 1970. Fees in secondary schools are assumed on average to increase 20% by 1970 compared with 1961.

The Report contains elaborate analyses of income and expenditure by source in 1961–62 for national secondary, vocational etc. schools and the corresponding projections of income and expenditure in 1970–71.

The findings are summarized in Table 5.21 of the Report and are reprinted here.

£1,000

| | 1961–62 | | | 1970–71 | | |
|---|---|---|---|---|---|---|
| | Public | Private | Total | Public | Private | Total |
| Current resources .................. | 19,417 | 4,893 | 24,310 | 32,625 | 8,080 | 40,705 |
| Current transfers .................. | 908 | 572 | 1,480 | 2,230 | 690 | 2,920 |
| Capital items .......................... | 2,047 | 1,635 | 3,682 | 5,650 | 1,450 | 7,100 |
| Total .................................. | 22,372 | 7,100 | 29,472 | 40,505 | 10,220 | 50,725 |
| GNP (factor cost) .................. | | | £636 m. | | | £940 m. |
| *Educational expenditure as % of GNP* .............................. | *3.5* | *1.1* | *4.6* | *4.3* | *1.1* | *5.4* |

*Source:* Table 5.21 of *Investment of Education.*

The methods used in this chapter may be open to debate. They differ from the traditional system of fiscal accounting by including, e.g. parents' expenditure; on the other hand they do not include other economically relevant factors like income foregone. In my opinion, however, the methods used are consistent; they allow for cost comparisons between the different divisions of the educational system and they are very appropriate in an educational system in which large parts are run as a "private enterprise".

## II. *The performance of the educational system as related to social and economic objectives*

In these further Chapters (VI-VIII) the projected operation of the educational system in terms of student flows and output is examined in relationship to major social-economic objectives: widening social participation in education and meeting requirements for trained manpower.

### Educational Sector: Flow Pattern, Output, Partitipation (Chapter VI)

The team conducted a survey, sending out questionnaires to schools, on stock of pupils, examination results and transfer to other divisions of the education system or to occupation in 1962–63. Such surveys, the Report suggests, should be repeated in future and followed up by appropriate research.

*In primary (national) schools* about 1/5 of pupils do not acquire the *primary certificate.*

*In secondary schools* the first examination level is the *intermediate certificate*, taken at the age of 15/16. About 1/4 of entrants left the junior cycle without sitting for this examination; the Report states that the application of the term "attrition" to such non-terminal leavers would be, however, misleading, since years of school beyond primary level have a recognized value even if certificates are not attained.

Of the intermediate certificates 10% left full-time education; 85% of the boys and 74% of the girls continued secondary education, 5% of the boys and 16% of the girls continued in commercial or other full-time education.

*Leaving certificate* candidates (secondary school): 48% of the boys and 40% of the girls left full-time education. The destination of the remainder was: university 26% resp. 10% (not all of them were eligible for matriculation); teacher training 2% resp. 7%; commercial and other full-time education 14% resp. 36%. The percentage of honours certificants was highest in the faculty of Engineering (83%) and Science (61%), lowest in Veterinary Medicine (14%) and Law (20%).

The destination of leavers of full-time education at any level is broken down into nine categories of occupation — size and locality of the school have also been asked for in the questionnaire. The Report, in commenting on this flow pattern and output, indicates where consequences for school guidance, vocational guidance, curricula, etc. should b[illegible]her investigated.

The input-output pattern is one of the most imp[illegible]nstruments in analysing an educational system. It must show outpu[illegible]ercentage of input and input and output as percentages of the popu[illegible] in the corresponding age group (weighted average of several age cohorts). To do so, historical data are necessary. In the absence of such data, the team has conducted a survey, the results of which will certainly be found most useful for future work.

*Participation:* The Report uses the 1951 and 1961 censuses to clarify the relation between social group (parents' occupation) and full-time education (primary, post-primary, and third level, ages of 14, 15-19 and 20-24). The result is "a marked contrast between groups B (professional, senior employees etc.) and C (clerks etc.) on the one hand and groups D, E, F (skilled, semi-skilled and unskilled workers etc.) on the other, a contrast which becomes the more marked the higher the age-group and the higher the level" (between 40-47% of pupils in full-time education aged 15-19 belong to B/C, between 10-17% to D/E/F, between 4-8% of students aged 20-24 to B/C, less than 1% to D/E/F).

Participation rates are given by male/female and by town/rural. In comparing the position in the different counties marked differences are stated. The effects of the migration factor are shown by comparing the 1951 and 1961 figures. The Report concludes that the county differences cannot be explained on the basis of differences in social group or county income. "The cause of much of the disparity lies in the procedure by which secondary schools come into being... The State must concern itself with examining the present provision in each locality and with using its financial and other initiatives to see that no area is left without adequate facilities for post-primary education."

Manpower (Chapter VII)

The Report evaluates the different methods of manpower forecasting (historical, structural and establishment approach). The historical approach, supplemented where possible by the other methods, is used. Total employment figures for 1971 are derived from the Second Programme for Economic Expansion. The forecast is then carried on up to 1976, giving figures for 1961, 1971 and 1976 in agriculture, industries, and services. The breakdown by occupational skill uses seven categories: *i*) professional and technical; *ii*) employers, managers and senior salaried employees; *iii*) intermediate non-manual (e.g. clerical) workers; *iv*) skilled workers; *v*) other non-agricultural workers; *vi*) agricultural workers; and *vii*) farmers. The distribution of total labour force by social group and by employment status is projected. The professional and technical group is considered in greater detail. It comprises the following percentage of total labour force:

| 1926 | 1936 | 1946 | 1951 | 1961 | 1966 | 1971 | 1976 |
|---|---|---|---|---|---|---|---|
| 3.9 | 4.2 | 4.9 | 5.4 | 7.1 | 7.8 | 8.9 | 9.8 |

The scientific and technical group as percentage of total labour force shows the following development:

| 1951 | 1961 | 1966 | 1971 | 1976 |
|---|---|---|---|---|
| 0.35 | 0.71 | 0.97 | 1.36 | 1.93 |

The compatibility of the manpower forecasts with detailed population and emigration forecasts (on account of emigration Ireland has to "over-produce" qualified personnel) is verified. The labour force as percentage of total population aged 14 and over will rise from 55.4 in 1961 to 55.8 in 1971 and to 56.1 in 1976. Finally the expansion and replacement demand for skilled non-agricultural manpower for the period 1961–1971 is shown in the following table in which I have replaced the absolute figures (for industries and services taken together) by percentages:

| Demand | Professional + technical | Employers managers Sen. Sal. employers | Intermediate non-manual workers | Skilled industrial workers | Total skilled (Indust. + serv.) |
|---|---|---|---|---|---|
| Expansion .......... | 24.3 | 7.8 | 32.0 | 35.9 | 100 |
| Replacement ....... | 9.9 | 7.9 | 52.6 | 29.6 | 100 |
| Total ................. | 15.8 | 7.9 | 44.7 | 32.4 | 100 |

The character of the future manpower demand, reflecting the expected development of the Irish economy is indicated in this table. One-fourth of the expansion demand will be for professional and technical personnel. However, high rates of replacement results in a total demand which will still be 77% denominated by the need for intermediate non-manual and skilled industrial workers.

Manpower: Comparison of Requirements and supply by Educational Levels (Chapter VIII)

The Report analyses the difficulties of translating manpower requirements into educational terms and, taking into consideration a "reasonable" development of existing conventions and trends, adopts the following target matrix:

| Socio-economic group | Percentage having as highest qualification | | | | Total |
|---|---|---|---|---|---|
| | No post-primary qualification | Post-primary | | 3 rd level qualification | |
| | | Junior cert. | Senior cert. | | |
| Farmers ........................ | 65 | 20 | 10 | 5 | 100 |
| Professional and technical . | – | – | 35 | 65 | 100 |
| Employers, managers and senior salaried employees .................. | – | 20 | 60 | 20 | 100 |
| Other clerical (intermediate non-manual) workers .... | – | 70 | 30 | – | 100 |
| Skilled workers .............. | 40 | 60 | – | – | 100 |
| Remainder ..................... | 65 | 30 | 5 | – | 100 |
| Non-labour force home duties, etc., including emigration) ... | 67 | 16 | 12 | 5 | 100 |

*Source:* Table 8.1 of *Investment in Education.*

*Stock comparison*: This matrix is then used to compare the projected stock of certificants in the labour force and the non-labour force in 1971 with targets requirements. The comparison reveals severe educational "deficits", especially in the junior certificate and third level qualification. On the other hand, the number of persons possessing post-primary qualifications is increasing rapidly: it will rise from 10% of the population aged 15 and over in 1961 to 25% in 1976. The Report concludes: "it would seem that those 'deficits' would be eliminated by the late 1990's; this, however, is not very interesting since it is most probable that standards would change before that time."

*Flow comparison*: The actual educational qualifications of those entering the labour force in the decade 1961–71 and the "target" qualifications are compared. The result is again a heavy "deficit" in the junior certificate level (50%), whereas in the senior certificate level there is a slight "surplus" (8%) and again a slight "deficit" (9%) in the third level certificate. The Report concludes, "that there may be scope on grounds of manpower requirements to provide more education and training, not only to persons at present in the educational sector, but also to those who are already in the labour force. Any precise information on the necessary increases would require more data than are currently available." The statement that there exist severe difficulties in formulating estimates of this type in the light of present knowledge is repeated in several chapters of the Report.

The method in this chapter which consists in using a reasonable target matrix to make stock and flow comparisons, may be open to debate. In my opinion this is a most interesting and valuable approach which should be taken up by further research work including international comparison. The conclusion of the Report that there is a marked "deficit" in the intermediate level of the junior certificate is in conformity with findings in other countries e.g. in my own country. This raises most important issues of educational policy: how can we make the intermediate certificate more attractive to pupils? How can education in the age group up to 16 for the pupils of average (non academic) ability be modernized and improved? How far can this intermediate level be attained not only in general but also in vocational and technical education?

## III. *The efficiency of the educational system*

Having examined the schools' performance in relation to certain significant socio-economic objectives, the Report moves on to an effort to assess the efficiency of some of the internal aspects of the educational system. Since education is an area of substantial expenditure, both private and public and the sector which employs the largest number of professional and technical personnel in Ireland, the Report views the need for such an assesment of its efficiency as important.

The broader objectives toward which the educational system contributes are restated for the purposes of this section, but the attention of the evaluation in Chapters IX and X is more narrowly directed toward the "technical" elements of cost in relation to student output. However, in the following Chapter XI on the financing of education these technical input factors are considered in relation to wider objectives. To what extent does the pattern of resources put into Irish education, and the pattern of finance, serve its large socio-economic objectives? — is the question effectively asked.

### The Use of Resources in the National Schools (Chapter IX).

The Report investigates the pupil enrolment size and the teacher size of schools, further the distribution of schools classified by religion and by centrality (cities, towns and villages, rural areas), class-size, and pupil/teacher ratio. The teaching and non-teaching current cost per pupil in schools classified by centrality and size is investigated. The attainment is assessed by examining the percentage of pupils obtaining post-primary scholarships, the schools being classified according to size and location in cities and in the rest of the country. Still another method of assessing the attainment is used, namely the age/standard distribution of pupils, showing the percentage of pupils delayed one, or two and more years in the standards of national schools. Finally, the percentage of operative schools under and over 80 years of age, the facilities and amenities of which they dispose, and the cost per pupil in newly built schools are investigated.

The Report concludes that *the large schools perform best* at the scholarship examinations, irrespective of location, although mostly their classes are oversized and their pupil/teacher ratio is unsatisfactory. The efficiency of the small schools seems doubtful (the 76% of national schools with less than 100 pupils enrolled contain 38% of all the pupils and 50% of all the teachers). Per pupil place they are not significantly cheaper to erect and are the costliest to maintain. Between now and 1980 well over half of the one – and of the two – teacher schools, which belong to the category of obsolete schools,* will have to be replaced; this – the Report points out – underlines the necessity of rethinking the school building policy which, in simply replacing the existing pattern, is not designed for change.

### Post-Primary Education (Chapter X)

*a) Secondary schools*: The Report investigates the distribution of schools by size, by centrality, by province, by sex of pupils, and by distance travelled to school. The distribution of teachers is examined by size of school, teaching hours per pupil per week, qualification of teachers, and percentage of teaching time by subject and by qualificatory status of teachers. Finally the report inquires into the percentage of pupils studying each subject and the attendance hours by subject and compares honours results in certain subjects of the intermediate and leaving certificate level for boys and girls.

The Report concludes that the curriculum in a great many secondary schools is limited and is of a classical grammar school type. A significant amount of instruction is given by teachers with no apparent university qualifications in the subjects being taught. The majority of registered teachers are arts graduates. If modern requirements should indicate a need for more flexibility in secondary education, the small secondary schools which are costly to operate and whose curricula are mainly designed to meet minimum examination needs, will find themselves in difficulties of adaptation.

*b)* In a similar way *vocational and technical education* is evaluated. The Report does not overlook the fact that the small vocational school has made a significant impact on its local community in the past. If, however, the only reason for these schools were the provision of continuation education** most of the units would be found to be too small. The announced reform of continuation education will necessitate the provision of adequate facilities in larger schools.

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* i.e., structure over 80 years old.

** The Vocational Education Act of 1930 established full-time continuation education which is "to continue and supplement education provided in elementary schools and includes general and practical training in preparation for employment". On completion of the course the "Group Certificate", a state examination is taken by most pupils. Duration of courses has been two years. A three year course leading *to higher education* will be introduced.

At present about 70 % of all expenditure on vocational education is spent for continuation courses, 17 % for technical education and 13 % for evening courses. According to the team's projections by 1971 continuation courses will account only for 55 % of expenditure, day technical education for 36.5 %, and evening courses for 8.5 %.

The Financing of Education (Chapter XI)

This discussion of financing moves from the consideration in Chapters IX and X of the "technological" efficiency of resources used for education to how the pattern of these resources fits with basic objectives. These objectives are restated as *1*) the fulfilment of social wants (people's need and demand for education), *2*) the re-distribution of income/wealth (equal participation in education regardless of income) and *3*) the promotion of economic growth and stability.

The team concluded (Chapter XV) that, while the third objective was the major pre-occupation of the Report, little can now be said of a precise nature on how education accomplishes this end and that education can best assist economic growth if it affords every individual the opportunity to develop. Short of this expensive goal, education might at least provide an adequate supply of trained manpower.

However, the state financing of Irish schools is shown to explicitly move forward serving the other two objectives, and this is germaine because action taken to promote one of these objectives will result usually in secondary effects on the others.

The key problem area involves the aim of re-distribution of wealth through education since it is here that state financing can make a significant difference. The intention presumably is to bring about some sort of equality of educational opportunity. However, the current pattern of financing in Ireland falls short of this objective in some of the following ways:

*a*) Because of such differences in local school standards as size of schools and quality of teaching facilities, equal per pupil expenditure does not result in equal opportunity to derive benefit from a given period in the national (primary) school.

*b*) In the secondary schools the system of equal capitation grants and incremental teacher salaries does not prevent the wealthier schools from being able to match state funds at a more generous level. Furthermore, since this form of financing does not meet the cost of maintaining children in school, the participation of the low income groups remains low.

*c*) The secondary school scholarship scheme tends to benefit those groups with a propensity to pass examinations (i.e. students from white collar families). Furthermore, its system of uniform payments favours those with incomes above the "threshold minimum" necessary to pay for the maintenance of the student.

*d*) For university education the state system of block grants lowers the cost of education to all students regardless of need. The scholarship system, as for secondary schools, also tends to serve those at the upper limit of the income permissible under the scholarship scheme.

*e*) Also, the differences in the cost to students, due types and duration of various university courses, are not offset by the current means of financing which therefore affects the choice of study on the basis of family income.

## IV. *Implications for the development and organisation of the educational system*

The possible alternative strategies for the development of Irish education and the organisational requirements to establish a development unit as a focal point for these efforts are two aspects of the concluding argument of this Report.

### Educational Organisation and Development (Chapter XII)

Since the examination of manpower requirements has indicated that there would be scope for policies aimed at altering the qualificatory status of people leaving the educational sector, the Report attempts to collect all quantitative information on such possible choices. It does not aim at making recommendations as to forms which future policies might take, but examines alternatives within the framework of its major areas of inquiry:

*a*) *Manpower*: The Report states that because of the possibilities of substitution, it is questionable if general manpower forecasts will ever be sufficiently accurate to form a basis for longer term educational planning. The solution to the educational deficiencies of the labour force as a whole would be largely a matter of adult education. The solution to the second problem — deficiencies of young persons newly entering the labour force in the area of junior post-primary qualifications — would be an expansion in the numbers who enter post-primary schools and a reduction in the numbers of those who leave these schools before obtaining a qualification.

Roughly one-third of entrants to junior cycle courses drop out before obtaining a qualification (about 20% in the junior courses of secondary schools and over 40% in the junior cycle of vocational schools). A considerable amount (about 18%) in the corresponding age and ability group stay in first level schools. Remedial action in the shorter run might be taken by increasing the number and/or value of scholarships. The Report estimates the annual cost of the appropriate increase, the current cost for additional teachers, and the capital expenditure for additional buildings involved in such a policy.

In the long-run an increased provision of schools — necessitated also by the announced raising of the school-leaving age to 15 — would have to be considered. For this purpose the existing post-primary schools are classified as to centrality and type. For cities and large towns the report mentions among specific measures which suggest themselves:

- In the case of vocational schools
  - *i*) providing the announced three year continuation course at a standard fee in all schools,
  - *ii*) extending its curriculum, and
  - *iii*) reducing the minimum age of entry to 12 plus.
- Giving secondary schools an option to accept a different pattern of state financial support which would enable them to give tuition

to junior-cycle pupils at the same standard fee as that of vocational schools.

– In the case of national schools explore the possibilities of providing "secondary top" departments in schools where pupil enrolment would be sufficient to sustain them.

For smaller towns and villages the idea of a single comprehensive post-primary school is considered as a means of solving the problems of such areas; attention is drawn to the transport and boarding problems. Again the recurrent and the capital expenditure involved in the measures considered are estimated.

*b) Participation:* The Report suggests that it may be more realistic to view the manpower deficit as being one facet of the much wider problem of participation in education as between socio-economic groups and between geographical areas. To stimulate participation by particular groups an appropriate scholarship policy has to take into consideration not only direct costs such as fees, books, transport etc. but also maintenance costs and opportunity costs. Therefore a system of *variable awards* which should correspond to parental income and cater for local conditions is examined. It is assumed that 5% of the total age group would qualify for maximum grants, while a further 20% would be eligible for some grant. At senior cycle it is taken that 25% of each age group would be likely to obtain such a course. At third level it is assumed that 50% would be boarding students. On the basis of these assumptions an additional annual expenditure of £1.05 million and an additional capital expenditure of £4.5 millions for the implementation of such a policy is estimated. Such costs raise the question of measures toward higher technical efficiency compatible with higher participation.

*c) Efficiency:* Since it is the smaller national schools which are the more expensive and whose pupils make the slower progress, larger schools should be encouraged. The Report examines various measures which would serve this purpose and estimates the savings in teaching costs and the additional transport costs.

Among the scarce resources in post-primary education are certain kinds of teachers (Mathematics, Physics, Rural Science, Modern languages) and expensive equipment (science laboratories, etc.). 70% of junior cycle pupils and 80% of senior cycle pupils are enrolled in secondary schools in towns. For these schools the Report considers whether allowances should be paid to teachers based on the proportion of their time spent on subjects for which they are highly qualified and whether it would be possible not to restrict teachers to specific schools which might imply the creation of a unified group of post-primary teachers. For expensive equipment it is envisaged that the school housing such facilities should make them available to pupils of all other schools in the centre. For schools in scattered communities the solution would appear to rest on major organisational changes.

*d) Finance:* If the present system of capitulation grants for secondary schools were abolished and the funds redirected into scholarship schemes, they could be increased from 10 to 40% of the present secondary school pupils. Since capitation grants are equal, the schools which charge higher fees can provide better facilities. Therefore another possibility might be to vary the capitation grant inversely to the fee level of the school. The present system of block grants to the universities means that expenditure is virtually "open-ended" with student numbers and university costs rising. The present methods subsidise a relatively wealthier sector of the community and stimulate its participation. The Report examines whether students who do not fulfil certain conditions such as scholastic attainment and/or family income should pay the full cost of university courses; for such non-subsidized students a private loan scheme might be organised.

In my opinion, it is the merit of this chapter to have demonstrated that the manpower approach to educational planning leads to a reconsideration of participation and thereby becomes part of a policy of *democratisation* of the educational system. The additional numbers of pupils in post-primary education which are necessary to meet the manpower requirements can only be attracted into the educational system if the under-representation of certain socio-economic and geographical groups is changed. The main instruments to achieve this purpose are the expansion of schemes of variable scholarships and of educational facilities.

Recommendations for Reorganisation in the Department of Education (Chapter XIII)

Surveys and analyses of educational planning should be continued in the Department; the existence of machinery for this work could transform the Department into a *development corporation*. The professional personnel undertaking this work should form an integral part of the Department and be in no sense a statistical adjunct or an advisory body. The *educational development unit* should be responsible for educational statistics and their publication, for forecasting the development of the system, evaluating the implications of such forecasts and of elected strategies, including the organisation of appropriate surveys. The unit should not itself engage in pedagogical research, but encourage and assist it and take cognizance of its results. The unit should be in close contact with the agencies responsible for demographic, economic, and manpower forecasting. The unit should be headed by an Assistant Secretary directly responsible to the Secretary of the Department whose staff would include a qualified statistician, an economist, an expert in operations research and data processing, and a senior educationist (inspector of the Department).

Information should periodically be received from an *Advisory Committee* consisting of representatives of Government Departments responsible for economic programming, the National Industrial Economic Council and the Director of Statistics.

The old problem whether educational planning should be done by an independent commission, by an agency outside the Ministry of Education or within the Ministry itself can only be solved according to the structure of the national administration. There seems to be no general answer to this question. On the other hand the experience gained so far in different countries points to three principles:

- Educational planning is a continuous process which in its implementation must be open to revision and re-adaption.

– Educational planning can only be achieved in co-operation with experienced educationists and must gain the support of public opinion.

– Educational planning must be embedded in the administrative machinery to influence the day to day decisions and to have access to new experience, new data etc. which emerge in regional and local levels of administration.

*Concluding comment*

The Irish Report is the first national document of educational planning having been completed within the framework of the EIP Programme. I think that it is an outstanding document, the reader of which will be grateful to the authors for many new insights into methodological problems. The report has enlarged our knowledge about the instruments which can be used to achieve targets of educational policy and it has set an example of how considerations and recommendations of educational planning should be developed and framed.

## Appendix II

## SOME ISSUES AND PROBLEMS EMERGING FROM THE SURVEY*

As determined by our terms of reference this Report [Investment in Education] is essentially analytical in character. It contains no recommendations on policy. Any attempt at a summary, therefore, would inevitably mean the selection of some topics and the omission of other topics of perhaps equal significance. We feel, nevertheless, that although a formal summary may not be feasible, some indication should be given of the general aim of the Report and of some conclusions reached as well as a pointed towards some issues and problems that emerge from the survey.

The report may be considered under the following four headings:

*i*) a projection of current trends in Irish education under existing Government policies (Chapters I to V);

*ii*) an examination of the extent to which this educational system can satisfy basic social and economic objectives (Chapters VI to VIII);

*iii*) a discussion of the efficiency of the educational system in its use of resources employed (Chapters IX to XI);

*iv*) a review of possible implications for educational policy and decision-making arising from the survey (Chapter XII). Chapter XIV deals with Irish aid to education in emergent countries and Chapter XV considers the general question of education and economic progress.

The only formal recommendation required by the terms of reference is contained in Chapter XIII, which proposes the creation in the Department of Education of an educational development unit staffed with professional personnel and designed to transform the Department of Education into a development corporation. One of the main conclusions that the members of the survey team have drawn from their work is that educational planning must be regarded as a continuous process which in its implementation must be open to revision and regular readaptation. It seems to us to be essential that knowledge should be constantly up-dated and that for this purpose suitable machinery should exist. In this sense educational planning can only be achieved in co-operation with experienced educationists and it can achieve very little unless it has effective support from public opinion. Educational planning machinery must be an integral part of the administration of the Department of Education and should be in no sense a mere statistical adjunct to that Department or an advisory body. The aim here is to ensure that every decision concerning education can be informed by all relevant facts and by an understanding of the implications of these facts, not merely for the educational system but for the economy.

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* Extract from the Report *Investment in Education*, pp. 387-394, OECD, Paris, 1966.

The aim of this Report has been to explore the Irish educational system, to examine its component parts and to ascertain the extent to which the system seems able to satisfy the demands likely to be made on it in the light of the needs of the 1960's and 1970's. In drafting the Report we have avoided recommendations of a pedagogic character because these are precluded by our terms of reference. We have been concerned to analyse the educational system in the context of Irish economic development and with a clear awareness of the sociological significance of what the educational system does and does not do. Our aim then, has been not to make pedagogic recommendations but rather to analyse the educational system with a view to helping towards decisions as to whether or not the human and material resources in Irish education are being employed in the most effective manner. Our work in this Report has been, we hope, no more than the beginning of a continuing exercise in investigation and review which we recommend the Department of Education to undertake in the future.

We began our Report by surveying the diversity and complexity of the Irish educational system. Part I attempts to develop a sense of perspective which may be relevant if social and economic programming are to be integrated. Our forecasts of population show how the population trend is likely to be reversed in the decades ahead and what this may mean in terms of pupil enrolment and of resources required. While the present national population trend is likely to be reversed a further decline in population seems likely in rural areas accompanied by an increase in urban areas. It need hardly be emphasized how important a factor for educational planning the level of emigration will be in the future. We have made our forecasts of population on different assumptions regarding emigration; in this, as elsewhere in the report, we have followed closely on the lines of the assumptions made in the Second Programme for Economic Expansion.

In our chapters on projections of costs it is quite clear that a substantial bill will have to be faced by the community in respect of education in the future. There are, for instance, not enough national teachers to meet the targets for pupil/teacher ratios proposed by the Council of Education, if the present organisation of schools and of the educational system generally is to be maintained. As regards post-primary facilities it will be necessary to reconsider the question of the existing organisation of facilities. This is urgent not only because of the need to provide full educational facilities for all areas but also because of the very heavy programme of building replacement which may be expected in the near future as a result of the advanced age of many existing secondary schools. It will also be necessary to consider the possibilities of more flexible use of resources, particularly in the smaller centres and in which transport facilities will have an obvious role to play. Additional university capacity is being provided but it seems inevitable that the capacity at present planned will quickly become insufficient in the decades ahead.

A considerable number of Irish pupils receive no post-primary education of any kind, and of pupils who begin post-primary courses a high proportion do not finish. Indeed, in the primary level we find indications that some 8,000 leave school every year without reaching primary certificate level. There are, in addition, inequalities in the participation in post-primary education of children at all levels, based on social group and geographical location. There is, clearly a need for public policy to concern itself with these anomalies. In the case of university education, for instance, the cost to the student will obviously be substantially higher if his home is not in a university town. Present trends indicate that, while there will be great expansion in the numbers of university students, this expansion will take place mainly in the Arts faculties. It is a matter for consideration whether it might not be desirable to take some steps to encourage more rapid development of some other faculties.

Almost half of the entrants into Irish universities have only 'pass' qualifications from their secondary schooling. In the Engineering faculty more rigorous standards are imposed. It may have to be considered, however, whether the present basis of examinations for satisfying entry requirements to the universities could be improved. This might be looked at from two aspects:

*i*) general level of entry standards;
*ii*) the combination of subjects.

Care will have to be taken to avoid the waste of scarce resources in having university staff teaching students who have satisfied only low entrance requirements when, in fact, other young people who could satisfy higher entrance requirements may at present be denied admission to the universities because their parents lack the means to pay for them. At present each university student, irrespective of ability (beyond satisfying matriculation requirements) is subsidized by the State to the extent of approximately £120 a year.

We have attached very considerable importance in our report to primary education and believe that no effort should be spared to attract the potentially best teaching talent to primary education. Very many members of our community acquire their formal education exclusively at the primary level. It is at that level that children should be inspired to continue their studies. Moreover, it is important in the decades ahead that the labour force should have enough basic education, not merely for present occupations, but as a basis for retraining in the event of change of occupation.

Even on the basis of what seem conservative targets we find that there is likely to be a shortage of qualified persons for work in the 1970's— a shortage of persons with post-primary certificates. All this shows the need for wider participation in education and for longer retention of pupils in the educational system.

It will also be clear from the Report, but particularly from Chapter VIII, that there is ample scope for the expansion of full-time technical education in Ireland.

We did not consider it part of our function to engage in any extensive analysis of curricula, but it is relevant to say that the Irish language is the sole teaching medium in only 134 out of some 4,800 national schools, apart from schools in the Gaeltacht. On the other hand out of approximately twenty hours per week instruction in national schools ten hours are devoted to the vernacular languages of which about two-thirds are devoted to Irish and one-third to English. We feel that the data on curricula in Chapter X and the data on the destinations of students given in Chapter VI will be of value to the Department of Education, to schools and to parents in their reconsideration of the use of student time — the most important resource of all in the ultimate analysis.

From an informal investigation of the career intentions of students at the various levels reflected in our questionnaires, we are left with the impression that at all educational levels choices are often made in a casual and arbitrary manner. Parents and children may often be ill-informed about prospects and potentials in making vital career decisions. We believe that the establishment of adequate career guidance is necessary in all branches of the educational system.*

In many ways Chapter XII of the Report is a crucial one in the context of educational planning and development. It suggests an approach to the problem of an improved allocation of resources in the educational sector. The data and analyses of the Report have generally been organised around major elements, which in that chapter are used to examine possible alternative developments of the educational system. Three major elements have been defined:

*i*) The minimum needs of the Irish economy to increase the flow of educated people. There appears to be a gap between the projected flow of qualified manpower and the projected requirements of qualified manpower. The particular part of the educational system related to this shortrun deficit is the junior cycle post-primary.

*ii*) Participation. Significant disparities were found in participation in the educational sector among various socio-economic and regional groups.

*iii*) Efficiency. Examination of the efficiency of important parts of the educational sector showed possible scope for their reorganisation.

The manner in which these three elements are related constitutes the basic strategy of our Report. From these strands of data and analysis, possible directions in Irish educational development are explored. First, in order to meet projected manpower requirements it would be possible to increase the participation in education of those social groups already tending towards high participation. This would, for example, be the result of concentrating on an expansion of conventional scholarship schemes, which would, to a large extent, support an expansion of the existing structure of education.

The alternative strategy would be to shape educational development so as to enable those groups in the population now largely not participating in post-primary education to avail themselves more extensively of it. Initially, the cost would probably be greater than expanding on traditional lines. Here, for example, a system of student support proposed would be based on need. This alternative would avoid creating a further imbalance in the educational system which would be even more expensive to correct later. Given, however, the limited resources available for education, as well as for all of the other elements in national development in the years immediately ahead, this question of cost is of course of utmost importance.

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* See, for instance, the introduction to ***Irish Independent Guide to Careers*** (Dublin, Independent Newspapers Ltd.).

At this juncture, the data suggesting gaps in the efficiency of the educational system in terms of the pattern of use of existing educational resources, seem to offer the most feasible approach to the problem of what expansion of the educational system is needed. An unplanned expansion of the educational system, which would merely multiply the existing structure, would rapidly exhaust available resources and be accompanied by a declining return in terms of student output. Thus, efficiency gaps in the educational sector, extended as trends into the future, are sufficiently wide to prevent any possible solution to the problem of manpower shortages or inequalities in social participation in education. Conversely, these problems might in large part be solved within the level of available resources, if new organisational and other approaches were adopted. This will be the specific and urgent concern of any future planning programme for Irish education.

Many examples of the need for planning on both educational and economic grounds suggest themselves. A high proportion of existing national schools need to be replaced in the next fifteen years. It is desirable, therefore, to examine whether a reduction in the number of very small schools might be feasible if transport services were made use of. This may be a specific example of where considerable and continuing savings in costs could be made and, at the same time, increases in benefits secured through the provision of better educational services.

Although our Report is concerned primarily with current problems we have been aware throughout of the desirability of having Departmental machinery available to investigate and report rapidly on problems created by new knowledge. Such problems require that curricula be regularly revised for relevance and that teachers should have effective contact with new developments in their subjects and with new techniques for presenting them. Facilities should be available to enable teachers to be aware of the relevance of psychological and sociological research to their tasks. We would finally like to emphasize the need for experimental testing of new educational strategies on a local and pilot basis before such strategies are introduced on a regional or national basis.

The trend towards a freeing of trade and the likelihood of Ireland becoming increasingly involved economically in Europe emphasizes the need for teaching Continental languages at all levels of post-primary education.

At present expenditure in Ireland on either basic or applied educational research is negligible. To increase both types of research is, of course, desirable, as also is the promotion of procedures for ensuring that the results of relevant research conducted abroad are available in Ireland. Research might concern itself, for instance, with the relationship of inputs of resources to outputs, including the evaluation of various combinations of resources. Such research might particularly be concerned with the evaluation of the pedagogical consequences of innovation. If the proposed development unit in the Department of Education is to function effectively, it must be able to identify obstacles preventing the achievement of objectives. These obstacles may derive from the quantity or quality of resources in use, from social traditions, from attitudes or indeed from technical pedagogical problems. Such problems would be fit subjects for research.

Since so many of the educational issues raised in our Report have long-term economic implications we suggest that the observations of the National Industrial Economic Council on these issues should be regarded as an essential part of the background against which decisions would be taken.

As we said in our introduction, we see in the Report only a beginning, a foundation on which others may build. There is no finality about it nor could there be, for change is perennial and so will not stop this year or next. The process, which the Report initiates, should be regarded as a continuing one if the intention of the Report is to be realized. The two basic problems of making the most effective choices and using means to greatest advantage will always remain. With them will remain the need for adequate information if policy is to be as fully informed as possible.

## Appendix III

## EXCERPTS FROM: "COMMENTS ON INVESTMENT IN EDUCATION"*

### A. *Analysis of curriculum in Irish schools: the extent to which it prepares the students for participation in modern society*

(pages 14-19 of the above mentioned report)

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*School curricula*

In considering the curriculum and the relative emphasis given to different subjects at any educational level, our particular interest here is in whether or not it prepares the children for the economic function they may later wish (or have) to perform. The purpose of primary education is to provide a minimum standard of education for those who will leave school at 14, and to lay a foundation for those who will proceed beyond that level. The compulsory subjects are religion, Irish, English, arithmetic, history, geography, music and (for girls) needlework. The optional subjects are rural science or nature study, drawing, physical training, cookery or laundry work or domestic economy (for girls), and manual instruction (for boys)**. On completion of the sixth standard pupils are required to enter for the primary certificate examination, conducted by the Department of Education, in Irish, English and arithmetic. The number of children finishing national school is about 55,000 each year, of whom 17,000 (or over 30 %) leave full-time education at that stage. No statistical information is available about what happens to children who leave full-time education at the primary stage, but it seems likely that at present unskilled workers are recruited mainly from this category. The survey team note that unemployment and emigration are predominantly associated with lack of skills or other qualifications.

The prescribed attendance for instruction is just under five hours a day for five days a week for 190 days a year. The survey team, from their observations, estimate that average weekly attendance is 22 and a half hours, of which 2 and a half hours is devoted to religious instruction, 6-7 hours to Irish, 3-4 hours to English, 5 hours to arithmetic, and 5 hours to other subjects (e.g. music, needlework etc.) with about 1 hour each to history and geography in the upper standards. The prescribed weekly attendance in primary schools is significantly shorter than in other western countries.* We are not in a position to compare the relative distribution of school time over the different subjects with what happens in other countries that like Ireland are striving to accelerate the pace of their economic expansion.

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* National Industrial Economic Council, Report No. 16, Dublin, 1966.

** Algebra and geometry are taught in some schools but are not obligatory in the smaller schools or in classes taught by women.

Education at any level has a number of related objectives, and we do not regard the preparation of the participants for employment as being the most important. Nevertheless, while it is not in comparative terms the most important objective, it must be given a high absolute level of importance in our circumstances. At present, over 30% (or about 17,000 persons) of primary schools leavers each year do not proceed to further full-time education, and the majority probably seek employment. Even if steps are quickly taken to increase participation rates in post-primary education, this number is likely to remain large for some time. There is no organised information about the extent to which the education that these primary school leavers have received fits them for the employments to which they are recruited: nor has there been any study of the reactions of employers to them. The only information we have on these issues is based on our personal experience and observation. We are not in a position, to judge whether or not this gives a true indication of the general situation but it suggests that the primary schools do not generally orientate young people towards the social and work environment in which they will later find themselves or always inculcate a sense of community values, it is also felt that the relative emphasis now given to the different subjects taught in primary schools does not accord with current educational, social and economic needs. Given the present length of the school week, the time available for subjects other than Irish is inadequate. Indeed, it seems to be only about one-half of that available in Britain. It is a matter of urgency that more teaching time be found for other subjects by introducing more efficient methods of teaching Irish and/or lengthening the school week.

The deficiencies described in the previous paragraph cannot be ignored because a moral objective of education is not to protect people from social and economic realities, but rather to develop in them a sense of obligation to participate in society as it exists, and to infuse them with a desire to improve it. The educational system must be related, therefore, to the society in which the pupils are living and in which they will later have to work in order to earn a living.

This lack of correspondence between curricula and economic requirements may also exist in post-primary education, but again the information is not available that would enable us to determine its magnitude or extent. Three further examples, however, are worth quoting from the Report. The purpose of the intermediate certificate is to testify to the completion of a well-balanced course of general education suitable for pupils who leave school at about 16 years of age, and, alternatively, to the fitness of the pupils for entry on more advanced courses of study in a secondary or vocational school. The survey team show "that relatively few leave school at that stage and that hardly any enter what would presumably be considered 'more advanced course' in a vocational school". The team therefore question (as do we) the extent to which these various purposes should be reflected in the examination and in the courses prescribed for it.

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* To a limited extent, an increase in the number of hours spent in school each school day or in the number of days spent in school each year is an alternative to an increase in the number of years of compulsory full-time education without any change in the hours per day or days per year.

The second example from the team's report relates to the teaching of modern continental languages. In the secondary schools modern continental languages are not essential subjects for recognized pupils. In 1962/3 in secondary schools, only 45 % of the boys studied French in the intermediate cycle and 21 % in the leaving cycle (the percentages for girls were 83 % and 64 % respectively), and the percentage studying other continental languages was negligible. In contrast, over 95 % of the boys in the intermediate cycle and more than 88 % in the leaving cycle studied Latin, the comparable percentages for girls being 48 % and 38 %, respectively.* During the same school year, boys in the intermediate cycle spent nearly 6 % of their time at school studying modern continental languages, and boys in the leaving cycle over 3 %, the corresponding percentages for girls being 12 % and 10 % (see Table 10.13, page 278). These averages almost certainly overstate the position in the smaller schools and understate it in the larger schools (see Table 10.16, page 281).** Modern continental languages are not included in the subjects for the Day Vocational Group Certificate, and teaching in them has been introduced in the vocational schools only in the last few years.

As the movement towards freer trade in industrial products proceeds, the rate of growth in exports must be raised to keep in step with the cost of rising imports. We cannot see how opportunities in foreign markets can be found and exploited if there are not available to potential exporters in Ireland adequate numbers of people with competence in the relevant languages. This competence is also needed in employers', workers' and professional associations and in Government departments. We are aware that since 1962/3 (the year to which the figures quoted in the previous paragraph relate) the Department of Education has taken steps to encourage the teaching of continental languages. If a significant increase in the emphasis given to modern continental languages (and especially French) in the secondary curricula is not achieved quickly, however, the supply of people qualified in this respect is likely to fall far short of demand in the early nineteen-seventies.

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* See *Investment in Education*, Table 10.12, page 276.

**The regional variations are also worthy of note. In 1963, in counties Carlow, Laois, Longford, Offaly, Wicklow, Cavan and Clare, no boys' secondary school had candidates taking a modern continental language at the leaving certificate. In the same year, no boys' secondary school in counties Donegal, Monaghan, Cork, Leitrim, Mayo and Cork City presented a candidate who obtained honours in these languages in leaving certificate.

The third example from the team's report relates to mathematics and science. The percentages of secondary school students studying mathematics and science subjects, with the corresponding figures for Latin, history and geography, are given in Table 1 below. During the school year to which the table relates (1962/3), boys in the intermediate cycle spent 7.6% of their time studying physical sciences and 1.7% studying life sciences, and boys in the leaving cycle 9.5% and 1.4% respectively; the corresponding figures for junior girls were 2.0% and 1.0%, and for senior girls 1.8% and 6.4 respectively (see Table 10.13, page 278).* The team estimate (see paragraph 10.14) that 64% of the teaching in science and only 44% of the instruction in mathematics was given by teachers who had taken these subjects in their final degree examination. The frequency with which teaching in mathematics and science (and indeed in modern continental languages) is provided is closely linked with size of school and fee levels (see Tables 10.15 to 10.17). These figures are disquieting in the light of the increasing relevance and importance of science in virtually all aspects of human activity. A country must positively encourage the scientific method if it is to make real economic progress. There is little doubt that Ireland

PERCENTAGE OF SECONDARY SCHOOL STUDENTS STUDYING CERTAIN SUBJECTS BY SEX AND BY CYCLE 1962/3

| Subject | Boys | | Girls | |
|---|---|---|---|---|
| | Intermediate | Leaving | Intermediate | Leaving |
| Latin | 95.2 | 88.3 | 48.4 | 38.5 |
| History[1] | 100.0 | 64.3 | 100.0 | 73.1 |
| Geography[1] | 100.0 | 80.9 | 100.0 | 89.6 |
| Sciences (intermediate) | 74.0 | - | 25.3 | - |
| Chemistry | - | 31.7 | - | 4.8 |
| Applied mathematics | - | 10.9 | - | - |
| Physics | - | 28.8 | - | 2.0 |
| Physics and chemistry[2] | - | 7.2 | - | 4.7 |
| General science | - | 5.2 | - | 4.7 |
| Physiology and hygiene | - | 1.0 | - | 41.8 |

1. Essential subjects for recognized pupils.
2. "Physics and Chemistry" is a separate subject.

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* These figures do not, of course, relate to *individual* boys studying science. The school week in a secondary school averages 27 hours with a maximum of about 30 hours. A boy studying a science subject is required under the Department's Science Grant Regulations to devote a maximum of 3 hours per week to it.

has been remiss in this respect in the past, and there can be no doubt of the urgency of creating and environment that is more favourable to the study and application of science in the immediate future.

## B. *Developing the educational planning mechanism in Ireland*

(pages 26-31)

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### V. *Educational planning*

In educational planning, as in the planning of any sphere, at least two things are necessary. First, a clear picture of the present position and an estimate of how it will evolve in future assuming no change in policy. Second, a conscious decision about what the future position should be, the definition of short, medium and long-term objectives whose realisation would achieve this desired position, and the formulation of policies by which these objectives can be progressively realised. In this section, we deal with these in turn, concentrating mainly on the first.

The first step is a necessary prelude to making decisions. All relevant information has not been available in the past: this is evident from the fact that a large part of the survey's team work consisted in attempting to fill gaps in the available information about the present educational system and its capacity to meet the minimum needs of the community. Indeed, the team saw their main task as supplying an adequate basis of relevant information for policy decisions and recommending how such information could continue to be made available (see Report, Introduction, page xxxix). A few examples of the areas in which the existing data were inadequate will suffice to illustrate the position as the team found it. The statistics of the number of pupils in State-aided establishments had been collected for administrative purposes and were inadequate as a basis for educational planning (see paragraph 1.2). Since the Department of Education exercised no function in relation to non-aided schools, it collected no information from them (paragraph 13.9). It would seem that demographic forecasts had not been used to estimate the future calls on the educational sector. No data on the age distribution of teachers were available regularly through the Department of Education (paragraph 4.10). The only data on secondary school building in past years were the actual number of schools, and no data were available on school capacity or on the extent to which additional capacity had been made available by existing schools (paragraph 4.19). For the purposes of analysis and projection, information relating to the movement of pupils through and out of the educational sector (i.e., the "flow-pattern") was needed, but this was not available and could not be derived from the data traditionally collected by educational authorities (paragraph 6.1). The team have pioneered in this country a comparison between future manpower and educational patterns (Chapter VIII).

If all relevant information is not available to policy-makers, there is less likelihood that their decisions will be the right ones. We therefore fully endorse the team's recommendations for reorganisation in the Department of Education (See Report, Chapter XIII), and welcome the fact that they have already been partially implemented. The team proposed the establishment of an educational development unit, which would be responsible for educational statistics, for forecasts of the developments of educational requirements and the evaluation of their policy implications, and for the experimental testing of new educational strategies. It would be concerned with the long-term planning of education and for "keeping policy makers informed of the effectiveness of the educational system in attaining defined objectives and in securing optimal use of the human and material resources employed in education" (see Report, paragraph 13.6).

The holder of a new post of assistant secretary (an appointment has already been made) would be responsible for long-term planning work and for directing the findings of the professional staff of the unit into the administrative system of the Department. The team believed that the head of the new unit (who we understand is in process of being appointed) should be a first-class statistician with administrative experience, who should be given sufficient standing "to command adequate consideration for his views and those of his unit in the criticism and development of policy" (paragraph 13.12). His staff should consist of at least one full-time economist, an inspector of schools on secondment for (say) two years, a person possessing skills in the application of quantitative methods to decision-making processes, and a sociologist (paragraph 13.12). In our view, if the unit is not staffed in the manner recommended by the survey team, its value could be seriously diminished and the whole basis for future educational planning weakened.

Our only reservation about the proposed educational development unit is that as conceived by the survey team it may not be large enough to deal with all the urgent tasks that will face it. We have already listed some of the gaps in existing information, and it is desirable that these should be filled as soon as possible. But that list was by no means exhaustive. The new unit should explore the probable effects of raising the school leaving age on the demand for teachers, school buildings and equipment, and on participation rates. The role of comprehensive schools and the manner in which these could be used to give greater flexibility to the educational system will also require further research. There should, in addition, be study of whether managers might wish to be relieved of onerous administrative tasks. The unit should also study the possibility of further extending co-education in post-primary schools; co-education is already making a contribution, especially in some western countries, to a fuller utilisation of educational facilities. If (as we have recommended) steps are taken quickly to raise participation rates in post-primary education, the unit might usefully study the possibility of using school buildings and equipment on a "double-shift" system. We would again emphasize, however, that these are but a few examples of the tasks that lie ahead. To ensure that the work of the new unit has its full impact not only on educational policy but also on the thinking of all those who are interested and engaged in education, it would be desirable that the main results of the unit's work sould be made available to teachers and their organisations and that there should be some arrangements by which these in their turn could refer problems to the unit for further study.

The second essential element in educational planning is the definition of objectives and of the policies by which they can be achieved. This aspect of planning was not directly dealt with by the survey team whose terms of reference did not cover "what the objectives of the educational system should be or... what priority or weight should be given to particular objectives" (see Report, Introduction). The choice of objectives and the policies required to achieve them are matters in which educationists must be involved. In the past, the planning of education was undertaken by the administrative staff of the Department of Education, and the Department did not receive purely educational initiatives and proposals from teachers or their organisations – or, indeed, from any other source. The result may have been a rather inflexible educational system that performed its existing tasks smoothly but that did not encourage experimentation in dealing with current problems or initiatives in formulating prospective problems. The schools had little freedom in matters relating to curricula and examinations, and consultation with the schools tended to take place with managers rather than with teachers. And it was occasionally felt that the choice of educational policy was influenced by extra educational considerations.

Following the role of the Department of Education in the *Investment in Education* study, the position has changed and is still changing. This awakening interest in education, however, will not bear its full fruits unless some more formal machinery is created through which the advice both of educationists and of those deeply interested in education can be made available to those responsible for formulating educational policy. We welcome, therefore, the announcement by the Minister for Education of his intention to establish an advisory council for education. We assume that the terms of reference of this council will cover the whole field of educational theory and practice, as is the case with the Advisory Council for Education in Northern Ireland.

We attach particular importance to the involvement of parents in this new advisory council and indeed in all discussions about education at all levels from the individual school upwards. Educational objectives and policies are matters in which all parents must have an intense interest, because the education which their children now receive determines both the quality of life and the level of material comfort that their children will later enjoy. It is also a major determinant of the kind of society in which their grandchildren and great-grandchildren will live.

In addition to this new council, there is a need for a more restricted body to advise specifically on the examination system and curriculum in post-primary schools.* This body should consider the relative emphasis given to different subjects, the form of examinations and the relationship between educational standards here and in neighbouring countries. It should publish annual reports incorporating up-to-date examination statistics, for the absence of these to date has made it difficult to review the working of post-primary schools and the efficiency of the changes in curricula and examination methods which have been introduced from time to time.

There are deficiencies in the educational system and they are the fault of all of us, because in the last resort a democratic society gets the quality and quantity of education that it wants, is prepared to demand and willing to pay for. The sober and detailed factual analysis in ***Investment in Education,*** by challenging complacency and conventional wisdom and leaving no excuse for ignorance of relevant facts, has given an impetus towards that critical examination of our educational system in all its aspects that alone can lay the basis for permanent improvements.

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*** A similar body already exists in Northern Ireland, namely, the Senior Certificate Examination Committee appointed in 1961. This body has the two-fold function of advising on examination policy at Senior Certificate level and of directing the operation of the examinations. This committee includes representatives of universities and teacher training colleges, teachers, school managements, local education authorities and the Ministry of Education. It is also responsible for the revision of the syllabuses and it publishes an annual report on its work and recommendation together with up-to-date examination statistics.**

## Appendix IV

# POLICY STATEMENTS*

## *POST-PRIMARY EDUCATION*

by Mr. P.J. Hillery, Minister
20th May, 1963

### *Introduction*

Just three years ago the occasion of a token Vote in Dail Eireann for the Belfield transfer afforded an opportunity of reviewing in a general way our whole system of higher education. Since then the marked acceleration in our economic progress is making demands on our secondary schools, vocational schools and technical institutions which render equally pressing a review of the post-primary sector. For this reason, when, in the autumn of 1961 it was mooted at the OECD Conference in Washington** that countries should carry out pilot studies of their educational systems in the light of their long-term economic and scientific needs, we were the first to volunteer. That was the origin of the study under the aegis of OECD which is at present proceeding here.

That study, now well under way, is due to be completed by October, 1964. Simultaneously with it the work of the Commission on Higher Education is proceeding apace. Within a reasonably short time, therefore, we should be in possession of two complementary reports signposting clearly and firmly the direction of our long-term educational requirements.

While that is so, it would not justify any disinclination to survey achievement so far in the provision of post-primary education with a view to grappling with whatever changes may be immediately necessary in our present post-primary structure.

Accordingly I have asked you, representatives of the Press, to meet me in order that through you, I might place before the public certain proposals in relation to post-primary education to which I contemplate giving effect. I am announcing them now so that the public in general and the members of Dail Eireann in particular may have time to consider

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*** These statements outline the major policy perspectives for post-primary and university education which have guided development planning in Ireland in these fields.**

**** Policy Conference on Economic Growth and Investment in Education, Washington, 16th-20th October 1961, OECD, 1966.**

them before they come to be debated when the annual estimates for my Department are being presented to Dail Eireann.

*Historical background*

Before proceeding to give details of these proposals I feel it desirable to give the historical background to our system of education and some facts and figures relating to it.

The understructure of our present s[illegible] was laid down in organised fashion by the Commissioners of National Education who, established in 1831, were the channel through which education was first financed by the State on a nation-wide basis. Starting with an annual Vote of £30,300, the Commissioners contributed systematically to the building of primary schools and the salaries of primary teachers. In a general way it is to be said for the national education system that it did provide in every corner of the country a good elementary schooling. By 1922, when the Commissioners were dissolved, there were in the whole country some 8,000 national schools.

Almost fifty years, however, were to elapse after 1831 before the State took any initiative in secondary education. It was only under an Act of 1878 that the Commissioners of Intermediate Education came into existence. They too began with an annual Vote of roughly £30,000, but beyond instituting the Intermediate Examinations and distributing their funds to the schools on the results of these, they were permitted to do little. By 1923, when their functions were taken over by the Department of Education, the total of the annual assistance they were giving to secondary schools amounted to no more than £220,000, of which roughly half consisted of grants to the schools, the other half being by way of contribution to teachers' salaries.

It was not therefore until 1924 that the State tackled seriously the problem of the financing of secondary education. In that year the payment of fees on results (including "inspection fees") was replaced by the present system of a capitation grant in respect of each recognized pupil. In addition, the principle of incremental salaries, payable directly by the State to the individual teacher, which had been introduced to a slight extent in 1922, became the rule. Also, as a condition of State recognition the school would have to employ a certain quota of recognized teachers, each of whom must have a contract of employment and would be entitled to a minimum basic salary from the school manager. (As a further point of interest it may be mentioned that the Junior, Middle and Senior Examinations were, from 1924-5 on, replaced by the Intermediate and Leaving Certificate Examinations).

Since 1922, our secondary education facilities have expanded rapidly. In 1921–22 the 274 recognized schools had 20,776 recognized pupils. At that time the total State grant for the whole island amounted, as I have said, to about £220,000 per annum. In 1953–4 there were 447 secondary schools, with 54,019 recognized pupils. In the present school year there are 557 schools with 84,916 pupils. This year the total State grant for secondary education here amounts to £3,745,000.

Late as came State assistance to our secondary schools, it was still later that the need for technical education was recognized. Only in the very last year of the nineteenth century was the Department of Agriculture and Technical Instruction set up. That Department paid certain small grants in respect of the teaching of science in secondary schools and also laid the groundwork in the promotion of vocational education under the local Agricultural Committees. The position in 1929–30, however, was that there were only 67 established vocational or technical schools, with an attendance of approximately 2,500 whole-time and about the same number of part-time pupils. As a result of the Vocational Act of 1930, there are now 315 vocational schools, with about 28,300 full-time and 68,500 part-time pupils.

The expansion of post-primary education under our own auspices has accordingly been phenomenal. That entitles us to lay stress on what we ourselves have done at that level. In particular, what is not widely known is that of recent years the demand for post-primary schooling has suddenly taken a sharper upward turn. From 1921–2 to 1953–4 the average annual increase in the secondary school population, for instance, was about 1,000. In 1953–4 the annual increase jumped suddenly from 1,000 to 3,000 and has since remained around that figure. Such increases are of course part of a world-wide trend, but we were late starters and it is therefore all the more remarkable that, contrary to popular belief, the over 60% of our 14–15 age group who are in full-time attendance at school is at least abreast of the corresponding percentage in most countries of western Europe and far ahead of some, except where, as in Britain, Holland and parts of Sweden and Germany, the compulsory school-leaving age is 15.

In regard to this subject it may well be mentioned also for the benefit of those who seem to delight in making comparisons to our detriment between this country and our neighbours, that a census taken by the Department of Education last year showed that the proportion of our 15-16 age group receiving full-time education at that time was 45%. The most recent official figure for our nearest neighbour's 15-16 age group is 30%. Of the 15-19 age group, of which we are sometimes asked to believe that approximately 70% or 80% or even over 90% are in full-time attendance in certain other countries, the fact is that the full-time attendance figure for the 15-19 age group in each of the northern and western European countries, including our own, is around 20%. Finally, it may as a matter of interest be added that the Irish proportion of university students is the European norm of about 3%–4% of every million of population.

### *Structural weaknesses in post-primary education*

These facts and figures might lead one to say that our rate of progress in the provision of post-primary education is reasonably satisfactory. A closer study of the situation, however, discloses two main weaknesses. The first of these is the particular one that notwithstanding the tremendous growth in post-primary attendance there are still areas of the country which have neither a secondary nor a vocational school within easy daily reach of potential pupils and where under the existing system such is not likely to be available in the foreseeable future. It is true that up to two thirds of our children already receive some post-primary education. The remainder, however, whose parents pay their share of the taxes and rates which help to provide post-primary education for others, might be called to-day's Third Estate, whose voice, amid the babel of competing claims from the more privileged, has hitherto been scarcely heard. As I see it, the equality of educational opportunity towards which it is the duty of the State to strive must nowadays entail the opportunity of *some* post-primary education for *all.* I must, therefore, include this remaining third of which I speak.

The second structural weakness is of a general nature and arises from the fact that our secondary and our vocational schools are being conducted as separate and distinct entities with no connecting link whatsoever between them. This, coupled with the haphazard way, speaking educationally, in which many pupils find themselves in one type of post-primary school or the other, has resulted in children entering vocational school who might have benefitted to a far greater degree from a more academic course. Conversely, there are large numbers in secondary schools who derive little benefit from the study of academic subjects but who might profit greatly from the more practical type of course provided in vocational schools.

### *Post-primary comprehensive schools for certain areas*

I shall address myself to the particular problem first. It relates, as I have said, to those areas where facilities for post-primary education do not at present exist. These are the areas where the population is so scattered as to make the establishment of a secondary or vocational school a most unlikely event. Even if it were at all possible through private enterprise to establish a school of the kind required, its smallness would decree that even the best of its pupils would have little choice of subjects in the minimal programme which it could offer. We have, in my opinion, reached the point when in these particular regions some new kind of approach is needed in post-primary education. Provision needs to be made for those for whom neither a secondary nor a vocational school will be available and that provision should contain such variety as to offer a choice of curricula. It would, of course, be held by some that with initial selection we could surmont this problem of having to offer a choice of subjects. If, however, one may be permitted to quote from oneself, let me recall that in reviewing higher education in Dail Eireann three years ago I stated that I had no use for an eleven plus or a twelve plus or a thirteen plus test. The overwhelming argument against a selection process at those ages is that it is still too early to decide once and for all on the direction which a child's career should take. It may be contended that there is always the possibility at a later stage of a transfer from one educational stream to another, but for various educational and other reasons such a transfer is seldom feasible.

If we rule out selection at those ages, however, there is no existent machinery for the provision of a school which could provide the comprehensive curriculum that would meet both academic secondary and vocational secondary needs. I am convinced that the answer to this particular problem must therefore introduce a new principle into Irish education, namely direct State provision of a post-primary school building.

Let me be quite clear. The proposal is not concerned with the providing of direct building grants for existing schools. My plan is for the provision by the State of a number of new post-primary schools to cater for particular regions. While this involves important and perhaps fundamental educational principles, the considerations which gave rise to it in my mind are, I may say, at least as much social as educational. In that regard it has been well said recently that educational, social and economic needs, so far from conflicting, actually add force to each other.

The new type of school I have in mind is a comprehensive post-primary day school. It would provide for children of age about 12-13 to about 15-16 a three-year course during which observation and tests would show with fair probability in which direction, academic or technical, each pupil's bent would eventually lie. At the end of the three years in the comprehensive section the pupil would take the Intermediate Certificate Examination, which in any case it may be necessary to amend in several ways. If he passed that Examination he could, if he so wished, proceed to the secondary or technical course, in accordance with his previous showing at the Comprehensive school and at the Intermediate Certificate Examination.

The tests to which reference is made in the preceding paragraph could be carried out only by persons who had the necessary specialist training to enable them to undertake such a task.

The Schools envisaged would therefore be Comprehensive schools. They would be open to all children within a radius of about 10 miles. Transport services would accordingly have to be provided for, say, all pupils within the prescribed radius living 3 miles or over from the school. Such pupils would be charged for transport a flat rate of so much per day, the remaining cost of fares to fall on the school budget. There would be a reasonable school fee which could be reduced in cases of hardship.

The curriculum of the School would entail for all its pupils a common core consisting of Irish, English, Mathematics and some form of hand-and-eye training (e.g. Drawing, Manual Instruction). Other subjects provided for would be History, Geography, Latin, one (or, where possible more than one) Continental language, Science, Rural Science Art, Singing and so on. There is no need to specify Religious Instruction, provision for it must be taken for granted.

If then, for example, after a year's observation it were found that a pupil, having chosen a particular optional subject of an academic type had no aptitude for it, he could thereafter drop that subject and be guided towards one of a more "practical" nature. In this regard, while the entire three years would be an "observation period" of the pupil's aptitude, the first year would be particularly such. What I have just said does not of course purport to give more than a general idea of the work envisaged.

In the areas concerned the vast majority or perhaps all of the pupils will be Catholics and having regard to the rights of parents, who in relation to the fundamental principles of education are represented by the Church, and in view of the Church's teaching authority, I have had consultation, which is proceeding, with the Catholic hierarchy on the management of these schools. I am satisfied that it will be possible in each case to constitute a committee of management which will be acceptable to all the interested parties. In this regard I would add that a proposal for the provision of a Comprehensive school of this kind for Protestants, if related to a suitable region, would be welcomed by me.

It is envisaged that the school building would be provided largely from State funds. Apart from the teachers' salaries, the bulk of the annual expenditure would arise from the caretaker's wages, heating and cleaning, repairs, equipment, etc. These would be covered in part by the school fees, but I have in mind that the greater portion would be met by annual grants from the State and from the local Vocational Education Committee or Committees. The latter bodies could be called upon to pay a sum equivalent to the expenditure they would have incurred if they had had to cater for the potential vocational education to pupils who found themselves instead at the Comprehensive School. I have not of course as yet been in a position to consult with any Vocational Education Committee on this. Such consultation must naturally await a decision on where any particular Comprehensive School will be situated.

The State would pay the teachers direct, as it does at the moment in the case of secondary teachers' incremental salaries, but it is envisaged that in the Comprehensive School there would be no question of a basic salary from the School, the State paying the entire salary. The general question of the salaries would be a matter for detailed examination later.

Generally the school would cater to a minimum of 150 pupils. Anything less than that number would not permit for the wide variety of subjects that should be included in the curriculum of a Comprehensive school of the short.

*Post-comprehensive school education*

So much for the Comprehensive three years junior course. The next question to be considered is the catering for the products of that junior course. Some could at the end of the course (or, naturally, if they so desired, even before that) elect to leave for posts of one kind or another. Other pupils leaving at the end of the course would be those who had failed to benefit adequately from the opportunity they had been given. With regard to the remainder, educational opinion nowadays, while insisting on a rounded education, would seem to favour also a reasonable degree of specialization after fifteen or sixteen years of age. This then, and not eleven or twelve or thirteen plus, would be the moment for a dividing into the academical and technical camps.

Those of an academic bent would present no great difficulty. They would enter on the Secondary Schools Leaving Certificate course and special arrangements by scholarship or otherwise would be made to facilitate their continued education.

In relation to those with a technical or practical bent I visualize some of them leaving to be apprentices and some of them being catered for in a local technical school which would function either as a senior storey of the Comprehensive School or as a separate technical school. The others, particularly the brilliant among them, raise a problem which is part of a much bigger issue.

Now, while since 1930 our provision for vocational education of the continuation type has made extraordinary progress, it must be admitted that, apart from the Dublin Technological Colleges and some other higher technical schools in Cork and elsewhere, our provision for higher technical education has lagged behind. The great reasons for this are firstly that one must creep before one can walk and secondly that in many places the industry, which is the necessary complement of technical education, was simply not there.

Recent years, however, have seen substantial changes in this regard and I am confident that as yet we are merely on the threshold of industrial expansion. I believe therefore that the time has come to take a firm step forward in technical education. Accordingly, it is my intention shortly to establish a Technical Schools Leaving Certificate and concomitantly with that to arrange with the appropriate Vocational Education Committees for the provision of a limited number of Technological Colleges with regional status in which the course for that Certificate will be provided.

The question of a Technical Schools Leaving Certificate opens up, of course, a much wider vista than would concern merely the Comprehensive School. This idea of a Technical Leaving Certificate has been under consideration in my Department for some time. The problem is that of bridging the gap between the ages of 15-16 and 18-19 so as to enable the best of the vocational school pupils — and also, indeed, of secondary school pupils with practical aptitudes, who might, on completing the Intermediate Certificate course, wish to transfer — to achieve a technical educational standard comparable in esteem, but differing in kind, from that available in the secondary school.

The aim of the Technical Schools Leaving Certificate would therefore be to testify to the satisfactory completion of a course of general and technical education which would fit the holder for *a*) entrance to certain university faculties or to advanced courses in a College of Technology with a view to a university degree or membership of a professional Institute and *b*) further training in industry and/or in a College of Technology for a post as technician or junior manager. The course, a two years one (for the Technical Schools Leaving Certificate) would include the study of Irish, English and a Continental language, a rather hard core of Mathematics Physics and Chemistry and a choice of two of a number of such subjects as Mechanical Engineering Practice, Mechanical Drawing, Automobile Engineering Practice, Heat and Applied Mechanics, Electrical Engineering Practice, Electronics and so on. Side by side with this there would be a corresponding curriculum and Certificate which would be suitable for young women as well as young men, in the field of Commerce and Economics.

Let me stress that these Technical School Leaving Certificate courses are by no means envisaged as intended exclusively for the very successful products of the Comprehensive Schools who have shown technical aptitude. The places in the Regional Technological Colleges will also be open to be completed for by products of the other schools in the region concerned who similarly have shown technical aptitude.

### *A common core curriculum and examination for intermediate secondary and vocational school pupils*

Now I come to the general problem. That general problem is the ill effect, already referred to, which arises from the secondary school and the vocational school operating in watertight compartments. The solution contemplated by me for that situation is not unrelated to the idea of the Comprehensive school and may indeed be said to stem from that pattern. What I have in mind is that within a reasonable period the present two years day course in vocational schools should be extended to three years. I then visualize that pupils who should have completed that three years course would sit, in common with secondary school pupils, for examination in the core subjects – Irish, English and Mathematics – of the Intermediate Certificate Examination, together with two or three more subjects from the widened Intermediate Certificate curriculum. That widened curriculum would give greater scope for practical subjects. It would also cater for the distinctive character and function of the secondary and the vocational school. The great advantage of a common examination would be to give parity of standard to the courses in the two types of school. In any case, a three years course in the vocational school is desirable as a foundation for the Technical Schools Leaving Certificate.

### *Conclusion*

In summing up, let me claim for the plan which I have just outlined that it is not set in Hy Brasil or Never-Never Land but would solve in a practical way and within a reasonable time the main problems of our post-primary education. Firstly, it would cater for a sector of our people whose call for education beyond the primary stage for their children has hitherto been largely unanswered. Secondly, the three years vocational school course envisaged, together with the bringing of the vocational stream throughout the country to a parity of standard and evaluation with the present secondary school stream, would in itself be a very important educational and social reform. Thirdly, the superstructure of the Technical Schools Leaving Certificate with as its supporting base the three years vocational school and the secondary school intermediate courses would give the country a systematic supply of youth with a sufficient technical education to become at a later stage the technicians and higher technicians the country is, as we must all hope, going to need. Fourthly, the examination in common for both secondary and vocational school pupils at the Intermediate Certificate stage would ensure a common standard of work in all our post-primary schools. Finally, the whole plan is a move in the direction, not only of a better coordination of our entire educational system but of equality of educational opportunity.

While, pending the determination of the location of Comprehensive schools and the extension of the vocational school course, it is not possible to say with any degree of accuracy what the ultimate costs will be, it will be readily seen that we are about to embark on very significantly increased expenditure on post-primary education.

## *STATEMENT TO THE AUTHORITIES OF SECONDARY AND VOCATIONAL SCHOOLS*

by Mr. George Colley, Minister,
January, 1966

In the course of the discussions which I have had recently with various educational bodies, proposals for the improvement of our post-primary system were examined and a very considerable degree of unanimity arrived at. It seems to me that we are now at the stage when the future policy of my Department should be outlined to all concerned in the provision of post-primary education. I write accordingly to you because I look to you to accord me your full co-operation in the effort to provide for every pupil, to the greatest extent which our resources will allow, an education suited to his needs and aptitudes.

It is a truism that education is a unity. Its focus is on the student as an individual and its aim from the beginning is to direct, to guide, to lead out the pupil's resources, moral and mental, so that he may develop the proper use of all his talents. Emphasis on the mode or means may change as the pupil passes from childhood into manhood but the aim and purpose are constant.

Such an aim and purpose call for equality of educational opportunity for all. My concern in writing to you here is the achieving of such equality in the post-primary phase.

Before proceeding with this theme, however, I wish to record my appreciation and admiration of the initiative and enterprise displayed by the school authorities, Secondary and Vocational. As a result of their efforts there are at present in this country some 600 Secondary schools and some 300 Vocational schools, so that it is now possible to envisage as a practical proposition in the near future the provision of post-primary education for all the children of the country; more than that, to envisage the provision of an education suited to the many different aptitudes and abilities of these children.

The Government has already signified its intention to raise the school-leaving age by the end of this decade. This step will create problems of accommodation and teaching power as well as of curriculum content. The solutions to the problems must be found before the raising of the school-leaving age becomes effective and it is my intention to seek them without delay. But the first step must be to consider how the facilities now available can be used to best advantage.

Hitherto, for reasons which it is not necessary to examine here, Secondary schools and Vocational schools pursued their educational endeavours along widely separated paths; indeed they formed two separate systems, each with its own schools, its own curricula and courses of study, its own examinations and its own cadre of teachers. The Secondary system offered courses of an academic nature almost entirely, while those offered by the Vocational system were mainly of a practical nature. The student opting for either system was required to take the courses offered by the system of his choice, regardless of where his abilities lay. Those suited to the system received an excellent educational service; those not suited, in number not inconsiderable, made the best they could of it.

There are two goods reasons, at least, for urging that the barriers between the systems be broken down: first, the denial of a suitable education tends towards frustration in the pupil; second, our national survival demands the full use of all the talents of our citizens.

The first steps in this direction have already been taken. It has been decided that from 1969 the Intermediate Certificate Examination will be open to candidates from the Secondary and Vocational schools in common. New courses have been added and the subject syllabuses are being revised. The courses and syllabuses thus revised will be issued during the current school year and will be effective for both Secondary and Vocational schools in September, 1966. Since the courses will require a minimum of three years' study — on which the pupils will generally enter between the ages of 12 and 13 — the present day continuation course in Vocational schools is being extended from two to three years.

I should say here that it is not intended that the Day Group Certificate Examination, now available to pupils in Vocational schools, will be discontinued. That examination, within its present subject limits, will remain and will as heretofore be available to pupils of the Vocational schools. The syllabuses for the Group Certificate Examination and the Intermediate Certificate Examination are being revised and, as far as is feasible, coordinated. This enables me to allow pupils from Secondary schools who propose to take up apprenticeship-training before completing the Intermediate Certificate course to present for the Day Group Certificate Examination on completion of the second year of their course. Furthermore, pupils who take the Intermediate Certificate Examination but who do not pass in sufficient subjects to earn the award of the Intermediate Certificate may be awarded the Group Certificate on the results of that examination if they are successful in the subjects appropriate to the Group Certificate course.

These steps will establish a common standard for all post-primary schools. Moreover, they are necessary preliminaries to our main task which, as I have said earlier, is the providing, to the best of our ability, for every student an education suited to his needs and talents.

As you are aware, my Department is at present engaged in a survey of the facilities available in all post-primary schools in this country. This survey, when completed, together with the information already available in regard to school population, will enable us to answer in regard to any area in the country such questions as 1) what is the number of pupils for whom post-primary provision is needed? 2) what facilities are needed to provide for these pupils? 3) what facilities are already available in the area? 4) what additional facilities are needed? The processing of the information so collected will take some considerable time. I feel we cannot afford to wait.

While the time has come when the operation of two rigidly separated post-primary systems can no longer be maintained, this is not to say that the Secondary or the Vocational school need lose its distinctive character. What I have in mind is that there should be a pooling of forces so that the shortcomings of one will be met from the resources of the other, thus making available to the student in either school the post-primary education best suited to him. For example, the Vocational school could afford facilities for the teaching of woodwork to pupils of the Secondary school while that school would give facilities for the teaching of Science to the pupils of the Vocational school. The provision of any necessary additions to the existing facilities would be by arrangement with the authorities of both schools.

As you are aware, comprehensive schools are in the course of erection in three localities — Cootehill, Carraroe and Shannon. These schools will provide post-primary education for all pupils in their areas. They will offer a very broad curriculum, comprising both academic and vocational disciplines. The services of psychological as well as teaching personnel will be available to guide the pupils in regard to the courses of study best suited to their abilities. Apart from their local importance these schools are of general significance because they will signpost the way to an integrated post-primary system of education. Let me add that I do not anticipate that the number of public comprehensive schools will be very great. My aim is that Secondary and Vocational schools, by the exchange of facilities and by other forms of collaboration, should make available a curriculum broad enough to serve the individual needs of all their students and thereby to provide the basis of a comprehensive system in each locality.

The extent and nature of the co-operation between schools will be governed largely by local circumstances but it is suggested that an approach might be made on the following lines:

1. In each locality the authorities of the Secondary schools (including Secondary Tops) and the Vocational schools should confer and formulate proposals on the utilization of existing accommodation or facilities and, where necessary, the provision of additional facilities.

2. That the Department of Education be represented at such conference by a member of the Department's inspectorate (primary, vocational or secondary). The functions of the Department's representative would be to help the school authorities in their consideration of the problem and to transmit to the Department for approval any arrangements proposed for the interchange of facilities.

3. That the following points be considered at the conference:

*a*) Are there any general classrooms or special subject rooms not being fully utilized at present in any of the schools and, if so, to what extent would it be possible for pupils from other schools to use these rooms?

*b*) Would it be feasible to make *ad hoc* arrangements of a temporary or improvised nature to provide additional accommodation and other facilities where such are not at present adequate?

*c*) Taking the needs of the schools collectively, are additional facilities necessary and how and where could they most effectively be provided?

*d*) Is the teaching potential in the area being utilized to best advantage? The possibilities of a greater degree of specialization through interchange of teachers might be explored in this regard.

*e*) Would it be feasible to introduce the teaching of such subjects as Art, Music, Woodwork, etc., where they are not already taught, if a teacher, or teachers, were employed to serve all the schools in the area?

*f*) Could the interchange of pupils between one school and another — one secondary school and another, or a secondary school and a vocational school — for particular subjects be arranged, if such were desirable?

*g*) If there are obstacles in the way of an interchange which would be desirable in the interest of the pupils concerned and of the better utilization of resources, how might such obstacles be overcome

*h*) Would it be feasible to form a class, composed of both secondary and vocational school pupils, for a particular subject, where the provision of that subject would not be justified in terms of the numbers seeking it in either school taken separately?

Problems will arise. Indeed, I am already aware of some of the difficulties in the way of effective co-operation and collaboration. Insofar as these problems concern my Department I do assure you that I will use all the resources available to me to find satisfactory solutions. The welfare of the pupil is our common purpose and I am confident that with mutual good-will and co-operation we cannot fail to improve our educational system and offer better opportunities to all the pupils in our schools.

# *UNIVERSITY EDUCATION IN DUBLIN*

Statement by Mr. D.B. O'Malley, Minister
18th April, 1967

I have asked you to meet me so as to issue through you, representatives of the public press, the following statement in relation to University education in Dublin.

Everybody, I think, will agree that the university situation in Dublin is far from being satisfactory. We have here in the capital city of a small country what are to all intents and purposes two separate and very differently constituted university institutions, each endowed in major part by the State, but each ploughing its own furrow with virtually no provision, formal or even informal, for co-ordination of their efforts or the sharing by them of what must always be scarce but very valuable national resources. Those resources comprise knowledge and skills of the highest quality, accommodation, equipment and material generally.

As long as the financial support of the State for what are in essense two competing institutions was not in the circumstances unduly great – although in fact, apart altogether from capital provision, it stands at the moment at over £1,400,000 annually – the position could be tolerated. Now, however, that university education, with its rapidly increasing student numbers and as a consequence its increasing requirements in staff, accommodation, equipment and material, will be making very much greater demands than heretofore on the Exchequer, clearly the State cannot continue and cannot be expected to continue to subsidize any avoidable duplication of university services which merely adds to the cost and lessens the educational efficiency.

This is for several reasons an opportune moment to call halt and assess the position. In the first place there is the general prospect, to which I have referred, of a vast increase in student numbers with a corresponding increase in expenditure on university provision. Secondly, the Commission on Higher Education has just issued a Summary of its Report and Recommendations. Thirdly, the issue has already come to a head this year by way of university building claims to cater for the increasing demand for places.

Let me begin with Trinity College. Trinity, in its capital claim submitted in relation to 1967–68 and succeeding years, seeks a State grant of almost £2.5 millions. The bulk of the claim is based on a decision taken by the College authorities last year to raise their ceiling of students from

3,000, which corresponds with the College's present capacity, to 4,000, provided that the additional 1,000 students come from any part of Ireland.

The College's number of students in 1965–66 was 3,327, comprising: From Ireland 2,085 (of whom 741 were from the Six Counties); from Great Britain 947; from elsewhere 295 (including 30 from the Continent, 34 from the USA, 4 from Canada and 1 from Australia and New Zealand).

The bulk of the claim for almost £2.5 million capital comprises £307,000 for scientific equipment; £812,000 for new buildings to house Engineering, Mathematics and some sections of Physics; £306,000 for a new building for Biological Sciences; £740,000 for the first of two Arts blocks and £46,500 for renovations and conversions in the School of Medicine.

Now I do not deny that the additional accommodation and other facilities would undoubtedly be needed if the ceiling were to be 4,000 without any reference to the origin of the total of the students comprising that figure. I would, however, have expected that in any circumstances a decision to increase by 1,000 beyond capacity would not have been made without the prior sanction of the State, which must pay the piper in respect of all the capital building concerned and also the major part of the consequential staffing and running expenditure. I would also have expected that this decision would not have been made at a time when Trinity still had over 1,200 non-Irish students. At present the State's annual expense for non-capital purposes in Trinity is about £170 per student, which means that in effect it would be called upon not only for the proposed additional (and later no doubt further additional) capital expenditure, but also for a further non-capital annual expenditure of at the very least £170,000.

Let me here digress for a moment in order to state clearly and unequivocally that I am strongly in favour of a leavening of non-Irish students in our universities. An admixture of foreign students is a healthy thing in itself and moreover is in accord with the best Irish traditions. Ever since Colmcille left Ireland for ever in 563, Irishmen have been striving, as far as circumstances permitted, to make some return of the debt they owe to the rest of the world. In early times we not only sent missionaries throughout the Continent, but received here in our schools many scholars and students. In more recent times our people, both clerical and lay, have gone out to the ends of the earth to make return likewise. Now again also we have students from the ends of the earth seeking skills and training here which are not available to them at home.

Furthermore, we Europeans, who through the action of Providence and not, I should say, through any merits of our own, owe to Ancient Palestine, Ancient Greece and Ancient Rome our flying start over the rest of the human race in almost everything that matters, owe in turn to the developing countries of to-day, to Africa, Asia and Latin America, a sharing with them of that priceless heritage.

I favour strongly therefore our receiving a reasonable number of foreign students, but consider that it is unhealthy, both from their point of view and ours, that there should be any large block of them (and especially a large block from any country already developed) in any particular College, with almost none in the others, as is the case at present. They should be more evenly distributed throughout our Colleges. Furthermore, in the future arrangements, which I shall adumbrate in a moment, I would hope that foreign students will not have to be subject to any extra charge.

To return to the claims for capital subsidies. Side by side with the Trinity claim for over £2,000,000 as a start, the Government, by reason of the prospective vast increase in student numbers, is inescapably committed to an eventual expenditure of over £2.5 millions for the new Arts and Administration Block in UCD; for £1.2 millions for the Students' Building there; and for an eventual £1,000,000 for the new UCD Library; together with a vastly increased consequential annual expenditure. All this is apart from the prospective State expenditure, capital and current, in the other university institutions, whose claims, if not amounting to the Dublin figure, are equally compelling.

Again, we must not forget that there are legitimate and pressing claims from educational sectors other than the universities. The scheme for free second level education which begins in September next will call for its quota of millions. Then we have our primary system, with its need for hundreds of new schools; then the secondary and vocational schools, with their immense capital and current needs; the Training Colleges; the call for more and more audio-visual aids, including an extended use of television; the necessity for a very great deal more educational research; and of course the many findings of the Survey *Investment in Education* and of the Commission on Higher Education are already knocking at the door. We are already spending on education much the same proportion of our national income as are the other western European countries. Soon, indeed, we shall outpass most of them in that regard. To my mind this will be very proper, as a small and poor country cannot afford *not* to spend more on education than a richer one. The sad aspect of the matter, however, is that while we probably are, and certainly will be, spending proportionately more on education than the other western European countries, our national income is lower per head than that of most of these countries, so that we shall in fact be providing less money per head for education than they. These are points that are seldom adverted to in the comparing of our educational system with others. The answer is that if we want still more education, we must have increased productivity. But while it is clear that increased productivity is what is basically required I am convinced that the prerequisite for this is more and better education. The interrelationship of productivity and education, is not, however, a vicious circle, but rather a coiled spring.

I am straying a little from my subject, but what I have been saying needs to be said and reiterated, if we are to see our educational commitments in proper perspective.

To return to expenditure at university level, we have three alternatives. We could continue to subsidize duplication, but this would simply be beyond our resources. We could arrest the growth of university education by maintaining it at the barest life-line. This cannot be thought of, for it would mean stagnation or worse. If a modern university is to avoid continual loss of staff and frustration generally, it must endeavour to expand its facilities to meet demand and must continually further equip itself humanly and materially to handle a rapidly increasing store of knowledge.

Indeed, it must itself add to that store. This is especially so, of course, in relation to that very expensive sector, Science, but it applies also to the traditional Arts and Commerce subjects, Modern Languages, History and the like. Any university which would be prepared to sit still in the face of the rapidly changing world of to-day would not be worth its salt and in fact under modern conditions would be doomed. In turn, the atrophy and slow death of our university institutions, which are the fount and source of the country's advanced knowledge and professional skills, would simply mean that Ireland would have no place in the world of the year 2000, which is not so very far off.

There remains only the third alternative, a joining of forces with a view to the obviating of all unnecessary duplication, with its consequent financial and educational loss.

That such duplication has existed and still exists is of course the fault of no particular institution. In an address of the 10th September last to the National Union of Journalists it fell to me to point out that "our present university set-up is a legacy of history — and history is a stubborn wrestler" but that until the Commission on Higher Education should speak my lips were sealed.

Silence did not, however, forbid the devoting of thought to the problem that lay on my desk in relation to the financial year 1967–68, namely, the in essence competing claims of the two Dublin Colleges. The major part of the problem had been with the Department from the previous year, awaiting the Report of the Commission. No Report from a Commission, however, even were that Commission one of angels, could be expected to produce a simple and easy solution.

It seemed useful, therefore, as the matter was more and more pressing, formally to bring the situation before the Government. This I did in December last, with a view to exploring how best to rationalize the university position in Dublin.

The Governement, while appreciating on the one hand the urgency of the matter but on the other that the Commission was expected very shortly to report, felt it would be proper to await the views of the Commission.

Now that a Summary of the Commission's Report has been issued it emerges that it does not contain any recommendations for the establishing of a formally defined relationship between the two Colleges. Before proceeding, however, let me here thank very sincerely the Chairman and members of the Commission for their labours. I have seen the larger part of the Report proper and when it appears, it will be evident from it that profound thought and very considerable energy has been bestowed on what is an extremely complex and wearying task. The members of the Commission, too, were caught in the web of history and, if, as was to be expected, their findings do not please this interest or that they have none the less served the nation truly and well.

If, therefore, in this particular problem of university education in Dublin, while recommending all possible co-operation between University College and Trinity College, they feel that each of these institutions should continue as an entirely independent entity without any formally established relationship between them, it was perfectly open to them to proffer that counsel.

For the reasons I have given, however, the Government considers that the public interest demands the establishment of a formal relationship between the two Dublin Colleges. The Government has accordingly authorized me to announce that it is their intention to proceed on the lines of my proposals of December last. Those proposals were framed on the basis of there being one University of Dublin, to contain two Colleges, each complementary to the other.

The two Colleges would be founded on the two existing institutions, University College and Trinity College. One University in Dublin would involve one University authority, statutorily established on a democratic basis, with a subsidiary authority, similarly constituted, for each of the two Colleges. In the matter of the identity of each College the feeling of the existing authorities will be given the utmost weight. I may add that I have this morning informed the President of University College and the Provost of Trinity College of these proposals.

This moment is not without its solemnity. It marks the end of an era in the long story of university education in Ireland and also, it seems to me, in the history of the country itself. Each of the institutions concerned has had a remarkable past and each has played a part of the highest importance to Ireland. Trinity, the elder sister, when founded more than three and a half centuries ago, was intended to be one of a number of Colleges of the University of Dublin. It is late in the day, but not too late, for it to become so.

In the intervening period it has produced a number of *alumni* whose fame has shed lustre not only on their College, but also on their country, in every part of the world — Swift, (whose tercentenary, just now being celebrated, has attracted scholars from near and far), Berkeley, Goldsmith, Burke, Hamilton, to mention but a few. More important perhaps to us than even the world wide renown of these is that in every generation since Swift Trinity College has produced from the ranks of the ascendancy a number of chamions of the oppressed majority, some of them even becoming its leaders. The names of Swift himself, of Berkeley, Burke, Grattan, Tone, Emmet, Davis, Hyde and many others are sufficient evidence of that.

There may be those who will feel, mistakenly, that under the new arrangements something of "that which once was great has passed away". It is to be noted also, however — there would be no point in ignoring it — that the College as an institution was for long the pillar and prop of the oppressors. This is to be noted, but not remembered. The past in that regard is past. Besides, Trinity is not going to pass away. It will be merely taking the final step across the threshold of that mansion to which it properly belongs, the Irish nation. I think I may say sincerely that Ireland will welcome Trinity's final entry into the fold with all her history on her head, as in the words of John Kells Ingram, she has caught to her breast Dane, Norman, Old English, New English, Huguenots and many others.

On such an occasion one cannot help thinking it a pity that when in 1908 an opportunity occurred for Trinity to enter the new university complex which was then being established here, she was guilty of what might be termed the Great Refusal. It would be totally unjust of anyone to blame the present authorities and staff of the College for that attitude of sixty years ago and I do not do so. On the contrary, since that time, things have, as the poet said, "changed utterly", in Ireland and in the world. The present moment is in my belief a most auspicious one for a reversal of the 1908 decision.

University College, too, although it is only a few years since it held its first centenary, has already carved out its special place among us. Founded by the Catholic Hierarchy in 1854 as the Catholic University of Ireland, its first Rector was the illustrious John Henry Newman, that lord of language and ideas whose lectures on "The Idea of a University", first delivered in Dublin, are more and more studied in every university in the world. Following the Catholic University's weary "struggle with fortune", as it was called at the time, survived as University College under the prudent direction of the Jesuit Fathers under whom it held its own and more than its own academically, but without State support, till in 1908, when it received statutory recognition as a Constituent College of the newly established National Univesity.

In its time it has numbered among its alumni or staff those great scholars Eugene O'Curry, Father Edmund Hogan, Eoin MacNeill and Douglas Hyde, the last two joint founders of the Gaelic League and MacNeill the founder of the scientific study of our early history.

Later it gave us Pearse and MacDonagh, who might be said to have stepped straight out of its portals into history. University College can claim too the name of Kevin Barry, which is graven in the hearts of the Irish people, and many other such who played a valiant part in the struggle for independence, not forgetting our present Uachtaran.

Since 1916 its special function has been to give our country the larger part of its teachers scientists, engineers, doctors, dentists, architects, administrators and other professional experts, as well as its quota of public men, whose services have over the last fifty years been increasingly required in the building of the new Ireland.

There may be some also to deplore that it has not been seen fit to give University College the status of a separate University, such as Newman dimly foresaw. To those I would say that to form a part of the University of Dublin is a destiny which will eventually add greater prestige to University College than if it were to stand apart on its own. At any rate, the basic economic and educational facts of the case insist on the complementary position which I have outlined. The statutory arrangements will, of course, only lay the structure on which that complementary position will be achieved. The Commission on Higher Education has forecast that we may expect some 26,000 students in higher education by 1975, of whom about 23,000 will be attending university. At the moment our university student figure is about 16,000 and despite any damming of the torrent which may be achieved by such measures as two Honours in the Leaving Certificate for university entry, my personal forecast would be something like 27,000 and not 23,000 university students eight years from now.

At any rate, clearly now and not 1975 is the time to try to rationalize the position. There are many obvious ways in which this could be done. Why, for instance, should the State have to pay University College, Dublin £160,000 annually and Trinity College £86,000 annually towards the support of two distinct Veterinary Faculties, when these two Faculties annually produce about 45 and 10 Veterinary graduates respectively? Would not it be well if these two Faculties could be merged in a single institution? In the field of Dentistry, thanks to the Government's action, the clinical teaching is given by all the staff, in the case of three Colleges, to all the students. Would not it be very desirable to bring about an arrangement whereby the pre-clinical Dental students would be catered for in similar fashion?

In University College, Dublin there are about 900 Science students, with about 900 more from various Faculties who take Science in their First Year only. In Trinity College there are about 300 Science students. Would not it be more economical for all these to be taught under the one roof, so to speak? I do not say that this can occur by October next. The switch-over would take some years, but it is a target which we must set ourselves. Similarly in Medicine, similarly in Arts, the two other large Faculties, need there be unnecessary duplication of staff, duplication of building, duplication of equipment? These are the kind of things I have in mind when I speak of the two Dublin institutions being complementary to each other. If I am asked can the thing be effected, my answer is that, given the will to do it, it can be done — and I have no reason to think that the will shall not be forthcoming. There will be difficulties and there will still be some overlapping, but the whole thing cries out for some kind of complementary allocation.

It may also be asked would not such a coalescence of staff of this Faculty in one College and of that Faculty in another College be a case of over-staffing. As it happens, it would not, for, as is well-known, our university staff-student ratio is very weak compared with that obtaining in, say, Britain. In University College, Dublin it stands at about one member of the staff to 22 students and in Trinity at about 1: 16, whereas in Britain it is about 1: 8. Even, therefore, if the staffs of the two institutions were to coalesce in any Faculty, the staff-student ratio there would still be far from the optimum. The severest demand on any university to-day is the maintaining of international standards and in the long run the standard of any educational institution will depend on the numbers and quality of its staff. It is for us to be thankful that if our staff-student ratio is low, at least the quality of our university staff is high generally.

In this matter, therefore, as in many others, what makes economic sense makes educational sense too. The collaboration in one Faculty of the staffs of two existing Faculties cannot but contribute greatly to the raising of standards. Similarly, in research in which sector there is relatively a good deal of leeway to make up in all our Colleges; this was in large part due to the heavy teaching load, due to shortage of staff. There, too, accordingly, we may expect a great advance.

In passing it may be mentioned that the finding of qualified staff for our university institutions is going to present us from this on with a very serious problem. For my own part I would have good hopes that under the new régime the most brilliant of our own postgraduate students would be carefully nursed so that when the time would come for them to seek a teaching post they should feel that their rightful place is in one of their own Irish university institutions. I believe that the proposed arrangement will contribute greatly towards that end.

I have treated mostly of the economic side of things and of training for the professions. Let it not be thought that for that reason the purely educational aspect of a university's functions is regarded by me as of little account. Far be it from me to convey that impression. We are all to some extent followers of Newman in the belief that a university has something more to give its students than mere training. If it is true to itself, it should also give them that indefinable thing which might be called quality. I believe firmly that the new University of Dublin will be better able to give its students "quality", in the best sense of the word, than could, under existing conditions, either of the existing Colleges.

Finally, but by no means least in importance, the new University of Dublin will not be "neutral" denominationally, but multi-denominational, with the fullest respect and recognition for all denominations of students and the fullest mutual respect among them for each other. "Neutralism" in relation to what happened two thousand years ago in Palestine would not have been and is not a concept that would have any appeal for the vast majority of Irish parents, whatever their denomination. In the future University of Dublin there will be provision for both Catholic and Protestant Schools of Divinity or Theology. This was not permissible to University College under the 1908 Act.

As I have said, we are at the opening of a new era in higher education. This national problem which has been with us for many generations needs only good will for it to be solved satisfactorily. I am confident that good will shall be forthcoming and that the present is the ideal moment to evoke it.

## Appendix V

# LIST OF PARTICIPANTS: CONFRONTATION MEETING

### I. *MEMBERS OF THE COMMITTEE FOR SCIENTIFIC AND TECHNICAL PERSONNEL*

| | |
|---|---|
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| Mr. E. Kobia | Belgium |
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| Mr. J. Pedersen | Denmark |
| Mr. P. Théron | France |
| Mr. R. Grandbois | France |
| Mr. A. Rouge | France |
| Mr. O. Mohr | Germany |
| Mr. G. Drobig | Germany |
| Mr. M. Schreiterer | Germany |
| Mr. G. Milon | Greece |
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| Mr. D. Sette | Italy |
| Mr. K. Nishida | Japan |
| Mr. H. Iwamoto | Japan |
| Mr. H. Thill | Luxembourg |
| Mr. P. Schleimer | Luxembourg |
| Mr. C.H. van Norden | Netherlands |
| Mr. H. Veldkamp | Netherlands |
| Mr. E.S.D. Th. Beelaerts van Blokland | Netherlands |
| Mr. K. Eide | Norway |
| Mr. J. Batanero | Spain |
| Mr. L. Sandgren | Sweden |
| Mr. E. Gerber | Switzerland |
| Mr. H. Acar | Turkey |
| Mr. S. Uner | Turkey |
| Mr. J.F. Embling | United Kingdom |
| Mr. W.K. Slatcher | United Kingdom |
| Mr. R.C. Flynt | United States |
| Mr. R.W. Mayhew | United States |
| Mr. C. Stewart | United States |
| Mrs. N. Novosel | Yugoslavia |
| Mr. L. Jacoby | Euratom |
| Mr. G. Bemtgen | Council of Europe |

## II. *DELEGATION FROM IRELAND*

**Dr. T. O'Raifeartaigh**
*Secretary-General, Department of Education.*

**Mr. S. O'Conchobhair**
*Assistant Secretary-General, Department of Education.*

**Mr. M. O'Donoghue**
*Professor, Economics Department, Trinity College, Dublin.*

**Mr. W.J. Hyland**
*Statistician, Development Branch, Department of Education.*

**Mr. M.J. O'Flanagan**
*Chief Inspector for Technical Education, Department of Education.*

**Mr. C. Smith**
*Secretary, Irish EIP Survey Team.*

## III. *EXAMINERS*

**Dr. H. Janne**
*Professor, Solvay Institute of Sociology,*
*Free University of Brussels.*

**Mr. Y. Martin (Rapporteur)**
*Director of Research, General Planning Department,*
*Ministry of Education, Quebec.*

**Dr. A. Tremblay**
*Deputy-Minister, Ministry of Education, Quebec.*

**Mr. B. von Mutius**
*Regierungsdirektor,*
*Permanent Conference of Ministers of Education*
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